773 184 early December. Only a few went on to Quitovaca, which has a much smaller festival every August. The two ceremonies are so different as to need separate descriptions.

THE WINTER CEREMONY[3]

x796 [805] The San Xavier calendar stick, which records the important events among the northern villages for the last eighty years, has, regularly every four years, a blue dot to represent the prayer-stick festival at Archie. It was discontinued after 1912, but revived in 1932, and now the Archie people plan to continue it regularly. It is, as has been mentioned, a co-operative effort on the part of Archie and her daughter villages and serves as a general reunion, when every family of Archie stock returns to camp around the mother village and shares in the general blessing.

x796 ● 361 621 The villages of this common family are those which occupy one of the typical north and south valleys of Papagueria, extending in this case from Archie on the north to Big Fields on the south. Archie is the oldest settlement and almost contiguous with it is its daughter Santa Rosa, divided into two sections known as the Burnt Seeds and Palo Verde Standing. The other offspring are scattered down the valley, the most important being the ancient town first called Mesquite Root, then Iron Pump and now deserted for Big Fields, where its farms are.

x796 621 Archie, Santa Rosa, and Iron Pump always join for the prayer-stick festival. With them is the neighbor village Akchin, more distantly related and with offshoots in another valley. Finally they admitted a comparatively new settlement, belonging to people of another dialect who had moved near them. This was Anegam, (place of the willows). These towns co-operate and sing against each other as do *kivas* and moieties in localities of a different organization. All their offshoots and "relatives" come to the ceremony and camp nearby, each identifying itself, for the singing, with its mother village.[4]

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[3] Briefly described in Mason, 20.

[4] In the account of the prayer-stick festival for 1932, one informant substituted Palo Verde Standing for Iron Pump, claiming that the latter has now almost no inhabitants. It is former Iron Pump people who live at Palo Verde.

KIN BEHAVIOR

THE GROUP

571 The relationships of the ancient Papago, economic and social,
602 were almost all within the kinship circle. "We love our relatives."
"We would do anything for our relatives." "A purified scalp works
for you like a relative." "We like to go to feasts *to see our relatives.*"
[576 Address by the kinship term was the regular greeting, the regular
783] form of applause and the final rite for receiving a neophyte back to
daily life after purification. White residents, critical of Papago
self-government remark: "A Papago elected to office will consider
no one but his relatives."

596 Anciently, the only standardized relationships were within the
extended family. People outside it should not be chosen as friends
609 because they could not be relied on. Any exchange of gifts made
with them should be in the nature of a trade, with full payment
immediately and no credit. Even though near neighbors, they
remained in an outer sphere unless they were judged desirable
connections in a marriage alliance. Then they were investigated,
approached and finally drawn within the active circle of kin, to
have their share in companionship, service and gift exchange.
602 Within this kin circle, there were no rigid rules. Papago had no
avoidances and no joking relationships. The marriage regulations
were tempered with economic convenience. The particular group
of kin to whom one owed constant duty was not the nearest in blood
but the nearest geographically.

361 This pragmatic use of a kinship formula was in agreement with
the Papago mode of life. Villages were scattered over an immense
602 desert country where travel was difficult, because of the absence
of drinking water and a relative removed to another village became
almost inaccessible. But relatives close at hand must be a constant
reliance. They were the people called on for cooperative labor in
house building, ditch digging, planting, harvesting, spinning, arrow
making. A family's actual existence might depend on cordial
relations with them. "We would do anything for our relatives" had
the connotation "And our relatives would do anything for us." The
cordial relations were an economic investment

602 Such an investment was rarely made in non-relatives, since they
could not be trusted to repay, having their own more intimate
obligations. But a relative valued his kin status and would pay,

either in goods or services, now or later. So one turned to any 602 relative at hand. The Melanesian, walking across an island to carry a ceremonial gift to his sister, would be incomprehensible to a Papago. In the practical scheme of the Desert People, a sister received gifts when she was present, none when she was absent.

The geographic grouping of relatives depended on land. The 361 ● desert country contained innumerable small patches, near the 621 mouths of washes, where flood agriculture was possible. Each family must have such a patch where it could plant in the summer, migrating in the winter to the mountain springs. But the patches within walking distance of any village finally became exhausted and then one of the younger men would decide to move. It was unthinkable that he should go alone to his new home, both because of the fear of enemies and because neighborly help was a constant necessity. So he looked for others who needed land and, of course, he looked among his relatives. The records show no examples of unrelated people joining in such a move. But, given the passport of relationship, circumstances might bring together kin of almost any degree. The five new settlements recorded, show the following relatives 621 each with his immediate family.

Appendix I. 3 Ego
Ego's full sister and two half sisters, all married to the same man.
Two other full sisters.
Ego's mother

I. 4 Ego
Two nephews
Three classificatory paternal uncles
Five cousins of the uncles, kinship to Ego not known

I. 5 Ego
Mother
Four brothers
Dead wife's mother's brother
Dead wife's older brother's son

I. 7 Ego
Brother
Widowed sister

I. 8 Ego
Two brothers
Three sisters

VILLAGE GROUPINGS

A Papago village official addressed his speeches not to "my fellow 621
townsmen," but to "my kinsmen." For applause, each one called 537
him by the kinship term and it was rarely that anyone had to substitute "my friend." A village was a settlement of kin and others entered it only by invitation or by marriage.

But a village was not a constant unit, for desert conditions, before 361 ●
the digging of government wells, did not permit of year-long
residence in any one place. In the summer, when rains filled the 621
shallow reservoirs scooped out with blades of wood and stone, the 221
people could live in the flat country whose name is the same as that for "land" and "ground" and here they could have their fields near the mouths of washes. Such a farming settlement was known not as a village but as Fields, since these were the important thing.

The fields could be occupied only during the summer rainy season and as long afterward as the water lasted in the reservoir: then the people must move to the foothills where there were springs. Each Field had its foothill camp, known as the Well where its residents kept duplicates of the objects they could not transport, such as metates and water jars and where they had at least the posts for a shelter. Sometimes one Well would not accomodate all the Field people and then they had several. Sometimes two related villages used the same Well, but then they kept apart and established no gift intimacies with their new neighbors. When one changed his Field village, for good reason, he was still not expected to change his Well village. Relationships in each were permanent.

The result was that each village had a dual existence, in summer at the Fields, and in winter at the Wells. Many censuses have
come to grief over this difficulty. But Field and Well together were 361
part of a larger group. In the course of time, the villages had 621
proliferated, sending out one group after another to look for more land. The new settlement thus made might be only a suburb of the home village, obeying its officials and coming home for ceremonies But sometimes the daughter village was so large or so far away that it needed a leader of its own. Then it appointed one, but considered him always subsidiary to the leader of the parent village. The new hamlet might also, in course of time acquire a fetish and hold a few ceremonies in imitations of those at home. But, on great ceremonial

But, on great ceremonial
361 occasions, all daughter villages returned in a body to the parent
621 village. If intervillage games were held, it was understood that all
[796] played and bet on the same side. If one went on the warpath, the
[721] others were notified and asked to join. Modern interpreters speak
of these related villages as "partners". We shall refer to the whole
group of mother village, daughter villages and Wells, as a village
unit.

The three reservations number eleven such village units whose location has changed very little in the two hundred and more years since Kino visited most of them. The reason is obvious. They were placed in spots which were, then as now, the best for cultivation. Usually, the main villages are found in the middle of the north-to-south valleys, with their daughter villages stretching along the valley in both directions and their Wells perched in the mountain walls at either side. Sometimes a village has made two or three short moves to get better water and it may have carried its old name with it to each location, but all the sites are easily identified and generally the history of the moves is preserved in tradition.

Our knowledge of the daughter villages dates only from 1860[1] and it is possible that their settlement is recent and due to the cessation of Apache raids. Kino, who visited several of the mother villages, says nothing about the daughters and we do not know whether the three hundred and seven hundred people who greeted him[2] lived in town or in the environs. But we know that, during the eighteenth and most of the nineteenth century there could be no daughter villages. That was the time of the Apache attacks, when the people were obliged to concentrate and, no matter how far away their fields were: "They could not live far apart. They were afraid." (26)

361 But when the Apache ceased to trouble, toward the end of the
621 nineteenth century, the large villages began to break up and
groups moved out, either to the fields they had been cultivating, or
178 to new ones. Several villages recorded in the appendix were founded
in the last two or three generations and the movement is still going
on. In the last few years there has appeared a factor which will
influence residence even more than freedom from attack. This
is the digging of government wells. Already these have given some
of the large Field villages a permanent water supply so that movement in the dry season is unnecessary. As more of the Fields are
supplied, we may expect some of the Wells to be abandoned while
others, if conveniently located for cattle raising, may grow into

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[1] Hoover, 1395, p. 259.

[2] Bolton, 1936, pp. 397, 398.

permanent villages in their own right. Certainly the yearly migration 361 of the population and its dual residence, will become a thing of 621 the past. 178

The eleven village units form the outstanding divisions in the 621 Papago country and the loyalty of each individual is above everything else, to his village and its "partners". But the units are gathered into dialect groups, each with very different affiliations. The groups have no governmental or ceremonial significance and their members intermarry, though generally they prefer not to do so on account of divergent customs. The differences between them are fast disappearing and to find the points presented here required a long search. Many of the influences which have caused differentitation may be recent but it is not impossible that some of the lines of cleavage are very ancient ones and reflect a difference between the early Hohokam and those who accepted Pueblo acculturation. There follows a list of the dialect divisions, with their component village units and such historic data as are available for each. This list is in substantial accord with the excellent map published by Hoover[1], who has done painstaking work in tracing village descent. At the end of the chapter is a condensed chart, giving the names in common use (which may be Spanish, English, or adapted Papago), the Papago names and translation.

PAPAGO-DIALECT GROUPS AND VILLAGE UNITS

1. ARCHIE DIALECT GROUP

These are the Papago proper, the people on whom the name of 621 Bean Eaters was originally bestowed. They have an opprobrious 197 nickname, totokuanyi (loose gee string) never used by themselves. For clarity, they may here be spoken of as the Archie group, Archie being their oldest and most important village. It is this group which, tradition says, came up from underground and followed Elder Brother, finally planting their prayer stick on the site of Archie and thence populating the land. They are the people whose ceremonies show the greatest amount of Pueblo influence. The Pima, with whom they are closely associated, would seem to have provided the channel.

This group occupies a long north-and-south valley in the eastern part of the reservation, not far from the Pima. Their dialect is more like that of the Pima than are those of the other divisions and such of their customs as can be compared with the Pima show a

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[1] Hoover, 1935.

In love, she again showed independence. For a shaman to have more 115
than one wife was standard custom but Chona resented her co-wife. She 562
felt "unnaturally" and against all precedent the same emotions that a [595
White woman is expected to feel "naturally" in such a circumstance. The 756]
result was a minor rebellion, soon settled. Chona's life, on the whole, presents a fair picture of the crises which come to a Papago woman, heightened by a dynamic personality.

I

We lived at Mesquite Root and my father was chief there. That was a 159x
good place, high up among the hills, but flat, with a little wash where you could plant corn. Prickly pear grew there so thick that in summer, when you picked the fruit, it was only four steps from one bush to the next. And cholla cactus grew and there were ironwood trees. Good nuts they have! There were birds flying around, doves and woodpeckers, and a big rabbit sometimes in the early morning, and quails running across the flat land. Right above us was Quijotoa Mountain, the one where the cloud stands up high and white when we sing for rain.

We lived in a grass house and our relatives, all around us on the smooth 159x
flat land, had houses that were the same. Round our houses were, with no 361 ●
smoke hole and just a little door where you crawled in on hands and knees. 342
That was good. The smoke could go out anywhere through the thatch and
the air could come in. All our family slept on cactus fibre mats against the [513]
wall, pushed tight against it so centipedes and scorpions could not crawl in. There was a mat for each two children, but no, nothing over us. When we were cold, we put wood on the fire.

Early in the morning, in the month of Pleasant Cold, when we had all 159x
slept in the house to keep warm, we would wake in the dark to hear my 867
father speaking.

"Open your ears, for I am telling you a good thing. Wake up and listen. Open your ears. Let my words enter them." He spoke in a low voice, so quiet in the dark. Always our fathers spoke to us like that, so low that you thought you were dreaming.

"Wake up and listen. You boys, you should go out and run. So you will be swift in time of war. You girls, you should grind the corn. So you will feed the men and they will fight the enemy. You should practise running. So, in time of war, you may save your lives."

For a long time my father talked to us like that, for he began when it was black dark. I went to sleep, and then he pinched my ear. "Wake up! Do not be idle!"

Then we got up. It was the time we call morning-stands-up, when it is 159x
821

mother. My father asked him to sing over me to see what was the matter. 159x He sang all night, and in the morning he said: "You could be a medicine 787 woman." "That cannot be," said my father. "We have one medicine man in the house and it is enough." So the medicine man said he would take out my crystals. He leaned over me and sucked them out of my breast, one by one. They were as long as the joint of my little finger, white and moving a little. He said: "Look, I have taken them out before they got big." Then he made a hole in a giant cactus and put them inside. Then he looked at me and said: "They will grow again, for it is a gift."

IV

In the summer everyone came home to our village and we planted corn. 159x The corn was once a man and he lured a woman away to sleep with him. 243 She stayed a long time, and when she came home, she knew the songs that made the corn grow. So when the men all went to their meeting, this man did not go but he stayed at home hearing his wife sing. The men from the [533] meeting came to speak to him. "Why are you absent?" "Because I am listening to my wife." "How can it be that a man can learn more from a woman than from talking with us? Let us hear her, too."

So she came to the men's meeting and she sat between the chief and her husband. "Sing." And she sang the corn songs.

At the first song those men began to sing. At the second, they danced. At the third, the women came out of the houses, creeping to the council house to listen to the singing. At the fourth, they were all dancing, inside the council house and outside, to that woman's singing.

We sang those songs as we put the corn into the earth, but it was the men who sang, for women do not do those things now. We stood ready with the corn kernels while the men sang, then we went down the field together, each woman behind a man. The man dropped his stick into the soft earth, thud! As deep as my hand is long. The woman dropped in four corn kernels and scraped her bare toes over that red earth to cover them.

Then the corn came up. The fair stalks, the thick root, the broad leaves.

> I saw the tassels waving in the wind
> And I whistled softly for joy. [533]

My father used to sing that at night while the corn was growing.

I used to like it in the summer time when all our friends and relatives were around us. The houses were scattered all over the flat land; round [361] brush houses like ours. In every house there were women grinding corn, [342]

619 which belongs to the Uto-Aztecan stock.[1] Among all there was a strong feeling
101 of kinship, although the "Papago" feel themselves different from the "Pima."

161 The Desert People in the United States are officially consolidated into "The
Papago Tribe of Arizona." About 5,900 of them live on the Papago Reservation,
101 roughly a sixty-five-mile square lying along the southern border of Arizona
657 between the Baboquivari Mountains on the east and the Ajo Mountains on the
west, with an irregular line south of the Gila River as its northern boundary (see Map I). Others live near by on two smaller reservations: about 200 at Gila Bend to the northwest, and almost 500 at San Xavier to the east. Including a few members who live off the reservations, Papago now number close to 7,000, a large tribe which is increasing at the rate of over 1 per cent a year.

It is the Desert People, specifically those who live on the main Reservation,
128 who are the subject of this study; they are referred to here as "the Papago" and their reservation as "the Reservation." Those herein called "the Pima" are the official "Pima tribe," who live on the Gila River and Salt River reservations to the north.

● 361 On the main Papago Reservation the people live on lonely ranches or in scattered, sprawling villages, many of which existed when the first Jesuit mission-
621 ary, Father Kino, came in 1698. The village is the important unit among the Papago. It always consists of a group of related families, ranging in number from four or five to fifty or sixty household units, totaling perhaps three hundred individuals. However, there are only a few large villages: only thirty-six villages of more than fifty people on the entire Reservation. Sells, the seat of the government agency, has over one thousand inhabitants, but the number of white persons and the fact that many of the Papago families attracted there by government jobs are unrelated make this settlement atypical.

Villages are interrelated through the dialect groups. The original groups were first described by Father Kino, who thought of them as being virtually separate tribes (see chap. v). Since his time the various groups have moved to their present locations and have become officially consolidated into one tribe, but the divisions are still recognized by the Papago.

197 The dialect groups have recently acquired political significance. In 1936 the
Reservation was divided into nine districts, roughly equivalent to the dialect
631 groups but also determined by administrative and economic consideratons (see
Map I). The outlying San Xavier and Gila Bend reservations form two additional districts. Population in the districts on the main reservation varies from 1,200 in Sells to 250 in Gu Vo, the western districts being most thinly settled.

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[1] There are over fifty linguistic stocks in use among Indians of the United States and Canada today, some of them as different as English and Chinese (see Clark Wissler, *The American Indian*, pp. 391–400).

(4) [Text continues on p.7]

UP TO THE PRESENT

EARLY RESERVATION DAYS

175 The third period of tribal history begins in the early 1870's when the Papago were placed under the jurisdiction of the Indian Agent on the Pima Reservation. In the beginning of this period the Desert People were still living almost as they had before they ever saw white men. At the end of it (about 1933) many individuals had already made an adjustment to white culture, and they foresaw that the tribe as a whole would also have to make a similar adaptation.

175 361 When the Apache wars ended, far-reaching changes began for the Papago. According to the calendar stick, in 1872 "the Apache were civilized," and in 1876 "the Papago made peace with the Apache." Actually the Apache were not subdued until 1885, when Geronimo surrendered to General Nelson A. Miles, but after the 1870's the marauders were kept busy by the American troops. No longer forced to protect themselves in the large defense villages (there seem to have been about eleven of them),[14] the Papago once again began to spread out. Many returned to the villages where their fields were and took up again the old cycle of planting and harvesting, going back to the mountain villages when the ponds went dry. Others, in search of new fields or better stocked hunting grounds, sought new sites as they still do today. It was usually a small group of close relatives who established these new villages, and that is why almost all the people in a village are related. The old people still know the defense villages from which their parents or grandparents came, but the relation between defense villages and modern settlements is not yet entirely clear, particularly in the western part of the Reservation.

175 197 In interpreting the relation between defense and later villages, it is important to note that, in general, the people from each of the centers seem to have a distinct dialect accompanied by certain character and cultural traits recognized by all the Papago. Specifically, there are six dialect groups on the Reservation living in definable areas. The people speaking each of these dialects came from one defense center, in some cases two or three neighboring centers. There are also people who speak what is recognized as a mixture of two contiguous dialects, and several of these mixed dialect groups also had their own defense centers. To judge from the cohesiveness of the dialect groups, they must have long felt themselves to be distinct entities.

There were other movements among the Papago during this period. The

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[14] J. W. Hoover, "Generic Descent of Papago Villages." Hoover also includes Quitovac as a "mother village" (as he calls the defense villages) of the "Sand Papago," but the villages descendent from Quitovac probably represent a migration into the United States rather than an effect of the vanquishing of the Apache.

Chapter IV

THE PAPAGO FAMILY

342 352 HOME to a Papago is a small cluster of low, earth-colored buildings in a clearing encircled by creosote or mesquite bushes and cacti. The house is commonly a one-room structure, but there may be several rooms or, if the family is large, even several small houses. Near by is a ramada, roofed with dry grass and protected on two or three sides by a paling of saguaro ribs or ocotillo branches, which, if watered, may take root in summer and form a wall with green leaves and brilliant red flowers. Here, in good weather, cooking and other household chores are done. Suspended from crotches or pegs in the ceiling beams are bridles and other horse gear, the family washtub, and various domestic paraphernalia. A forked post holds a large olla pottery jar of water from which everyone drinks. (Water is treasured, for it must be hauled [312] by wagon from a well which may be several miles away.) One or more tiny huts serve as storerooms for tools and grain, and space is often set aside for a chicken yard and a corral. In the yard the dogs lie sleeping in the shade of the family wagon.

361 512 The Desert People spend most of the year out of doors. Their personal belongings are kept indoors, and in winter they sleep inside, but at least half the year they cook, eat, work, sleep, and visit in the yard or under the ramada. Nevertheless, there is a high degree of privacy, for the brush and the distance between houses or house clusters allows each family to live unmindful of the neighbors.

312 The old Papago house, a round structure thatched with grass, has not been used in most parts of the Reservation for fifty years. Modern houses are of the Mexican type: wattle-and-daub, adobe, or stone construction. The wattle house, which is built of saguaro ribs or ocotillo branches plastered with mud, can be cheaply and quickly put up by almost anyone. The adobe brick house is more difficult to construct, and usually helpers must be hired, hence the poorer families cannot afford this type of housing. Stone houses, built near accessible rock outcrops, also require considerable labor and skill and are rather rare.

[Text continues on p. 42-Analyst]

Chapter V

VILLAGES AND DIALECT GROUPS

621 VILLAGE and dialect group have a deeper and more personal meaning to a Papago than membership in the tribe. The village is his home, the place where he grows up and where his relatives are. In the old days, when the people migrated at least twice a year between the fields in the valleys and the wells in the hills, and new fields were frequently sought, the village was not so much a place as a particular group of people; but, now that communities are more stabilized, the *place* has also become important. Children in schools only a few miles away grow desperately homesick, and adults look forward to seeing the sun rise or set in the familiar notches of the mountains. People do move to other villages or leave the Reservation entirely, but they always want to come home.

THE VILLAGE

621
361 If you drive along the highway to where you are told there is a Papago village, you are likely to see only three or four houses, though you may know that two hundred and fifty people live in this community. But when you leave the main road and investigate the wagon trails, house after house appears, and you discover that a village of fifty households may cover as much as two square miles. Though some houses cluster around the school or the church, there seems to be no nucleus for the village as a whole. There are no streets or other spatial regularities, nor is there a general pattern for the location of homes and fields; some families live in the midst of their fields, and others live at some distance from them. Closely related families may live fairly near to each other, but most households see the tops of their neighbor's houses over a hundred yards of creosote and cholla bushes. Thus Papago have privacy without fences; they like this separateness and think nothing of the distances to be walked.

461 Like the houses, the events of village life are few and far between. Quiet day follows quiet day. The people work continuously but calmly, their labors

4: Joseph et al D,E-5 (1942-1943) 1949 NU28 Papago NU28

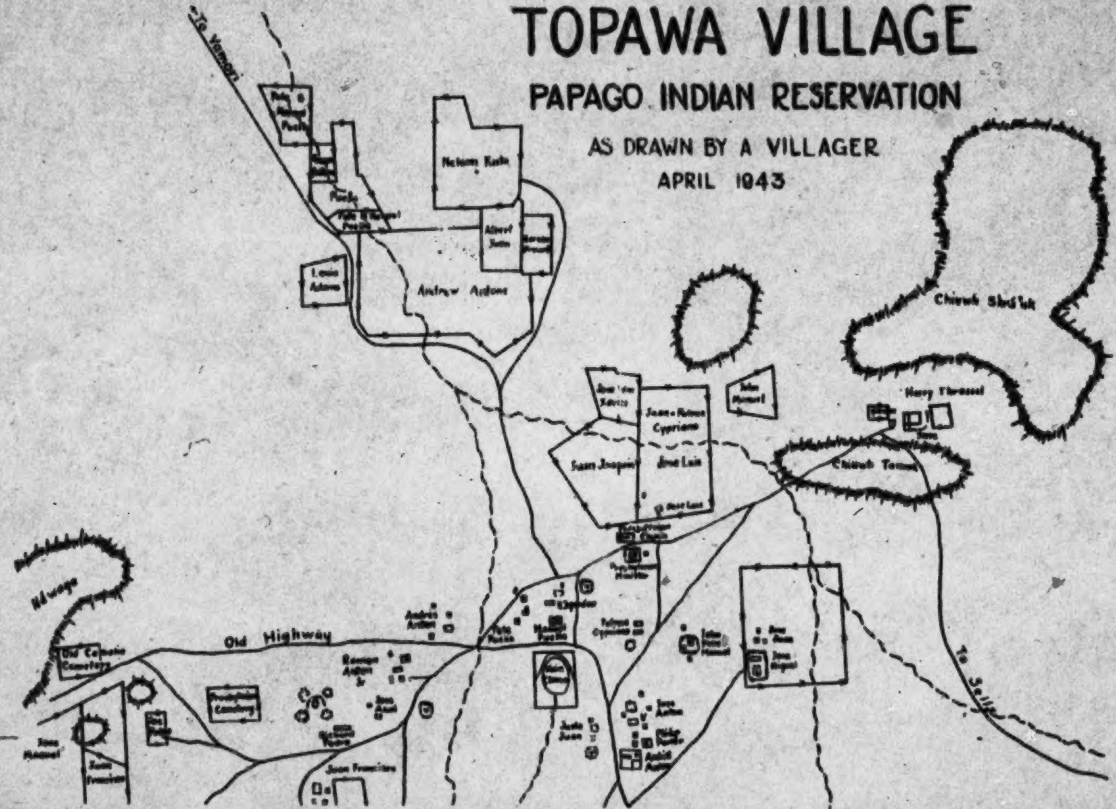
361
487

[p. 62 (A)]

TOPAWA VILLAGE

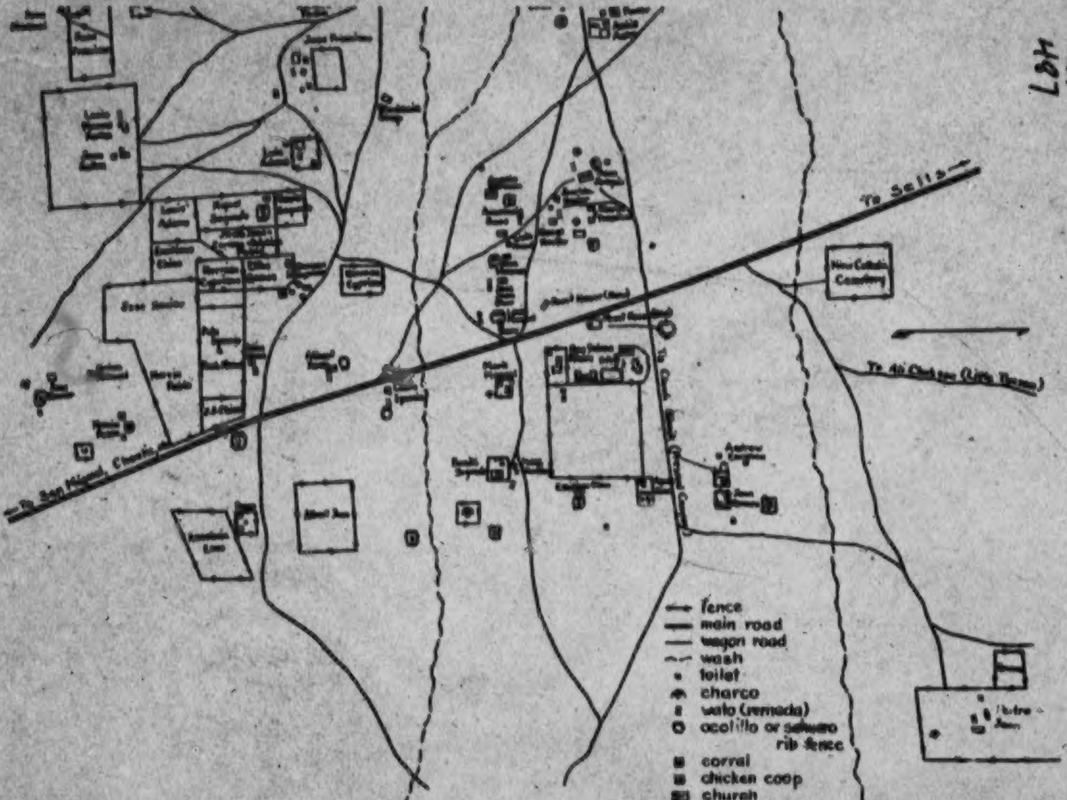
PAPAGO INDIAN RESERVATION

AS DRAWN BY A VILLAGER
APRIL 1943


To Vamori
Nelson Kris
Albert Juan
Louis Antone
Andrew Antone
Chiwuh Shu'uk
Harry Throssel
Jose Luis
Juan Joaquin
Chiwuh Toona
Old Highway
Old Catholic Cemetery
Andrés Antón
Jose Manuel
Juan Francisco
Justo Juan
Jose Miguel
To Sells

361
487

4: Joseph et al D,E-5 (1942-1943) 1949
NU28 Papago NU28

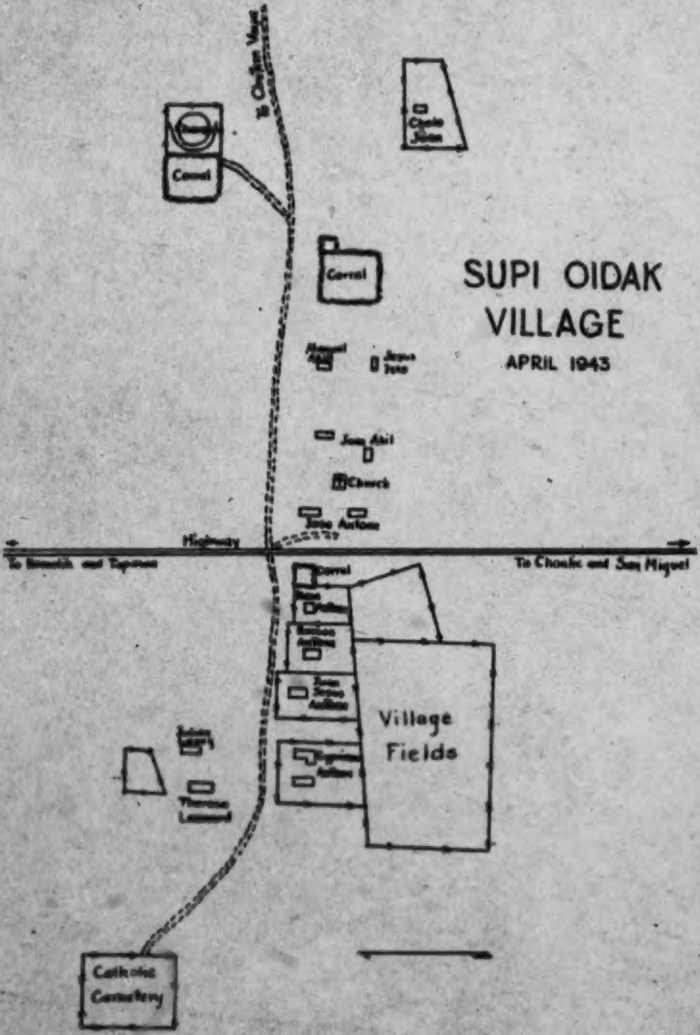

To Sells
To San Miguel, Chuwhi
New Catholic Cemetery
To Ali Chuk son (Little Tucson)
fence
main road
wagon road
wash
toilet
charco
watto (ramada)
ocotillo or saguaro rib fence
corral
chicken coop
church

MAP III

[p. 62(B)]

● 361
491
312
764

MAP IV


SUPI OIDAK
VILLAGE
APRIL 1943
Corral
Corral
Manuel Abil
Jesus Juan
Juan Abil
Church
Jose Antone
Highway
To Choulic and San Miguel
Corral
Village Fields
Thomas Leonard
Catholic Cemetery

Supi Oidak Village, April, 1943

[p. 64]

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28

times in the arroyos to live on the bean of the mesquite, and 174
again in the plains, seeking the pitaya, the tuna, the sahuaro 221
and other wild fruits. Sometimes they go to the Colorado River to obtain food amongst the Yumas through their skill in their disorderly dances, and at other times down to the missions of Pimería where, by the same means and by their tenuous labor, they obtain a little grain, and a few pieces of Sayal to cover the most immodest parts of their bodies." A similar uncomplimentary characterization of the region from Caborca to the mouth of the Colorado was given in 1764; the author, after describing the poverty of the country, referred to the Papago as eating "seeds of forage, herbs and wild fruits, and even rabbits and rats." Also, "Papagos is the name given by the Pimas to those particular Pimas who live in the desert as far as Tucson and . . . up to the Gila, living on seeds, grass, rabbits, rats and wild fruits."[24] The same reference laments the poverty of the Papago country, stating these Indians at times went to the villages of the other Pimans where they worked as servants merely for their food, even going as far as San Ignacio and Dolores; they were so fond of meat that they ate horses and burros, and in returning to their lands even stole and ate dogs. Pfefferkorn,[25] too, describes the inferior basis of Papago subsistence.

In the Papago country permanent sources of water in 174
association with tillable land are rare. This situation neces- 361
sitated a compromise between sedentary life in villages and 312
a migratory existence which expressed itself in seasonal movement usually between two kinds of villages. Those known as The Wells were situated at permanent sources of water in the mountains or foothills. The other type of village, designated The Fields, was in the open desert country adjacent to the cultivated areas, and twenty to thirty miles distant from their winter villages. Papago semi-nomadic life thus was not dictated primarily by the needs of hunting or agriculture but to

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[24] *Documentos*, 3rd ser. IV, 554, 838; *Rudo Ensayo*, pp. 189-90.
[25] Pfefferkorn, *Beschreibung der Landschaft Sonora*, I, 10-12.

174 get actual drinking water. Even so, permanent springs were
311 widely scattered, and the women spent more time fetching
312 water than gathering food. Such scarcity of water also had
its compensation, for it was the Papago's best defense against
the plundering Apache.

During winter, families camped as near as possible to a spring, water hole or *tinaja*, as exemplified along the western foothills of the Baboquivari Mountains and at Comobabi. But even this sometimes involved a daily trip of three or four miles, occasionally as much as ten, to fetch water, chiefly by the women. One Papago informant said that as a boy he had to make a daily trip of fifteen miles on horseback to secure water, carrying two ollas, each holding about three gallons. These water holes were not only sources of drink but of game, for here it was possible to stalk deer, antelope and mountain sheep. In places, water was secured from a very small spring where an olla had to remain under the drip for as long as half an hour, and in such cases women stood in line and sometimes had to spend the night, this constituting a social occasion. A few springs were large enough to be called wells, such as Badger Well in the Comobabi Mountains. The Papago enlarged it by building fires under its rocky walls to crack off the rocks. Occasionally a water supply at these winter villages was to be had only by patient digging in the sandy washes on the mountain pediment, and then at times in very small quantities along a plane of contact between sand and stone after scraping the sand away.

Families usually did not move down to the Fields until the heavy rains had begun, so as to be certain that drinking water would be found in the depressions which had been dug near each farming village, a fact noted by Font and by Garcés.[28] Such migration between the Fields and the Wells continues today, especially in the western half of the reservation. Often there were natural water holes or pools of

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[28] Bolton, *Kino*, IV, 32; Coues, *op. cit.*, p. 64.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28

standing water of variable size along channels where flood 174
waters spread out over adobe flats and washes, in which case 361
they were known as *charcos*, usually three to five feet deep. 312
Dikes and ditches were sometimes constructed to assist in trapping and impounding the surface water in such depressions. At times small earthen dams or *represas* were constructed, usually in adobe flats, to impound flood waters for household purposes, later for the use of stock.[27] Such pools retained water from a few days to several months and on the whole remained available until October or November, when the deer dance closed the agricultural season. Mange[28] observed that the Papago at El Gubo had a small spring from which they drank, and that the Sobaipuri at Correa on the Santa Cruz got their drinking water from a deep well made in the *caza* of the river, but which was at this point evidently dry most of the time, as their agriculture was *de temporal*. Such easy seasonal access to water freed the women for food gathering, essentially a summer occupation. Before the time of wheat cultivation and the digging of government wells, the Papagos lived at their *temporales* during the summer months only, but now, with dependable sources of water and the necessity for sowing wheat in fall, the aboriginal situation has been greatly modified, and the seasonal migration between Wells and Fields has lost its importance. Formerly the village of Kaka depended wholly upon its *charco*, and when this dried up the Indians were compelled to move or fetch water from Moivavi, sixteen miles distant in the mountains.[29]

Obviously such natural limitations precluded permanent homes and formal and elaborate equipment, and gave expression to a type of economy characterized by small groups of peaceful, industrious, skilled agriculturists, meagre in equipment, and informal and decentralized in organization.

[27] Bryan, *Papago*, pp. 121, 257.

[28] Mange, *Luz*, pp. 230, 256.

[29] Hoover: *The Indian Country of Southern Arizona*, p. 58; *Generic Descent of the Papago Villages*, p. 259.

5: Castetter & Bell N-5 (1938-1940 1942
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Pi Pa 134

organic matter and deeply growing roots of alfalfa result in looser structure and texture of the soil, making it more permeable to water and thus permitting leaching of the salts to lower levels.

The Gila Valley contains large areas covered with white incrustations of salts deposited by the evaporation of water reaching the surface from beneath. A comparison of the total salt content of surface flow with that of the underflow indicates the former contains salts varying from 39.4 to 120.2 parts per 100,000 of water, with an average of 96.3; the salt content of the underflow varies from 68 to 160 parts in 100,000 with an average of 126.6. Nevertheless the underground water at Sacaton is regarded as better for irrigation than the average surface water of the river. Examples of successful irrigation by waters more saline than the Gila underflow are numerous.[5]

Pa 311 361

A Papago village was invariably a settlement of kin, and others entered it only by invitation or marriage. The three Papago reservations comprise eleven village units, the location of which has changed very little since Kino first visited them.[6] The determinant reason is ecological, for they were located in spots which were then, as now, the most suitable for cultivation. Usually the main villages are situated in the north-to-south valleys, their daughter villages extending along the valley in both directions, and their Wells, or winter villages, located in the foothills on either side of the valley.

Pa 134

Soil in the Papago country is principally adobe, ranging from hard compact stretches, resulting from the first decomposition of lava near the mountains, to finer deposits mixed with decomposed vegetable matter on the floor of the broad valleys. With few exceptions, such as near meridian 112 at the Mexican line, where there is light, loose sand, the soil of the valley bottoms is fairly rich.[7]

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[5] Lee, *Underground Waters of Gila Valley*, pp. 61-2.
[6] Underhill, *Papago*, p. 58.
[7] Clotts, *Nomadic Papago Surveys*, p. 3.

5: Castetter & Bell N-5 (1938-1940 1942
NU28 Papago NU28
Pima NU29

Pi neither tribe participated. There were no community fields,
Pa but families worked reciprocally. Among the Papago, these
241 family enterprises were under the leadership of a patriarchal chief chosen by the people for life, there being but one chief to each village. The Pima agricultural unit also was the village, and, as Hill[9] points out, the necessity of communal endeavor in irrigation and for protection against alien tribes tended to solidify these village units. They were under the control of a village headman whose office was inherited and who was responsible only to the chief of the tribe and to
Pi public opinion.

● Pa Pima habitations were not then scattered as now. Fami-
241 lies lived close together on high ground for protection, par-
●361 ticularly after Apache raids became serious, and daily went out to work their plots as much as six to eight miles distant.
Pa During planting and hoeing periods they returned each night
Pi to their homes, but at harvest time camped at the fields.

241 Bringing a new tract of Pima land under cultivation and
474 irrigation required coöperation of the men in the one or
423 more districts which were to be benefitted, so as to arrange, dispose and dig the ditches. Under leadership of the headmen of the villages affected, meetings were held to plan the work. Hill[10] has pointed out that Pima land assignments under native custom were accomplished in two ways. When a large tract was to be developed it involved the coöperative efforts of individuals from one to three villages. Qualified men first selected the land and located the course of the canal. Then the community, under the direction of the headmen, constructed the canal from the river to the selected area. This completed, the men who had participated chose or were assigned plots of land under the supervision of the headmen assisted by an advisory body, but not all participants shared equally. The second type of assignment concerned a single individual. A man applied to the village headman, and a

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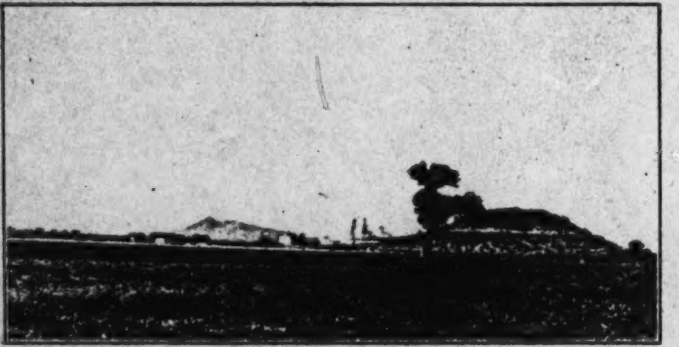
[9] Hill, *Notes on Pima Land Law and Tenure.*

[10] *Ibid.*

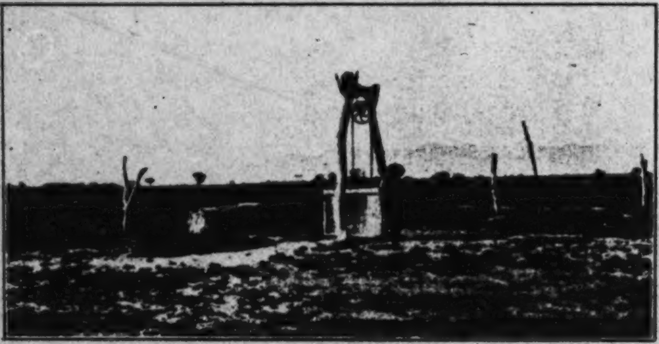
6: Densmore E-5 (1920) 1929NU28 Papago NU28

● 361



a, San Xavier village and mission

312



b, Well and water trough at San Xavier

342

c, Papago house at San Xavier

[p. 4-B]

797 missions furnished the troops with horses. In the Papagueria proper there were well-to-do missions such as Caborca, but the nature of most of that country would indicate that they were generally on a modest scale. There was one in Sonoita and two on the Gila River. In 1751–3 there was a revolt in Pimeria Alta, and in 1840 the Papagoes again revolted against the government.

With the expulsion of the Jesuits in 1767, and later of the Franciscans in 1828, the missions as well as the forts decayed and vanished. Changing political conditions in Mexico also contributed toward their disappearance. To-day the former missions interest few and are left to the archæologist to trace. Such has been the fate also of the missions among the Yaqui, Opata, and Seri Indians.

361 221 As for the Papago, the greater part of the tribe never could be induced to live in pueblos, or villages, which was always the policy of the Spanish missionary. In spite of the efforts of the Jesuits and Franciscans, the Papagoes are still living in their *rancherias* as of old, half nomadic in habit, resorting in the winter to the sierras where water is more plentiful and where their cattle, horses, mules, and donkeys find good grazing ground. 361 241 In the summer they move to the broad, flat valleys to devote themselves to agriculture which is made possible by the aid of the showers that fall in July and August. [312] They do not usually pursue irrigation beyond the diverting of rain water into ditches. In the summer they raise maize, beans, watermelons, and squashes, and in the winter when infrequent light showers usually may be depended

361 241 upon, peas, barley, and lentils may be planted, all on a small scale, according to Indian habits. Wheat, which is grown in November and harvested in May, is now the most important crop.

361 312 By scooping up the earth they make dams in which rain-water is stored for household use as well as for their domestic animals. This is especially the case at the summer rancherias. Of late years they have also taken to the digging of wells, going sometimes as deep as seventy feet, but they have been known to find an abundance of water at a depth of only eighteen feet. Thus the Papagoes, though sedentary Indians, have distinct habitations for summer and winter. The aboriginal name for the summer rancherias is *oóitak*, fields, called by the Mexicans *temporales*. The winter rancherias are called *kíbim*, where there are houses (*ki*), and these might be called villages. In some cases the summer rancherias seem to be considered the more important habitations, and medicine lodges are found at both.

721 As implacable enemies of the Apaches, the Papagoes were of some assistance to the early missionaries in helping the presidios to fight their savage foes, and they have several times, says J. F. Velasco, presented the government with ears and scalps of Apaches they had killed. Their innate enmity to the Apaches later gained them the favor of the Americans, who received their valuable assistance in campaigns against these marauders. They also gained the good-will of the Mexican Government by assisting in the war against the valiant Yaqui Indians.

600 It has been the good fortune of the Papagoes to live

132 few minutes later the Baboquivari Range, at a distance
of ten miles, was enveloped in a light fog. The change
was not only seen but felt, the temperature fell, and the
moisture of the air was very perceptible. As the wagon
was heavy and the road led uphill, it grew late before
our arrival, but the moon was half full, so we found our
way easily in the now quite chilly evening. The spell of
extremely dry air was broken and the season of rain
showers approaching.

We made our camp next to a big mezquite tree on a
756 slope among the ranches. The weird singing of a medicine-man
sounded through the greater part of the night.
Few are those Papagoes who have lost faith in their own
doctors, and even the so-called policemen turn to them
for relief if anything ails them.

● 361 Fresnal consists in reality of three rancherias, and we
132 found ourselves in the middle one. They are pleasantly
situated among the foot-hills and look like villages. The
[37] name is derived from some ash trees that grow in the
arroyo, the native name having the same meaning. Naturally,
the rainfall is greater here in the mountains than
on the llano and, according to local accounts, the arroyos
at times run a whole day. Occasionally the water is six
feet deep. The Indians say that the arroyos here carry
water to the Sonoita River.

231 The Indians of Fresnal are well-to-do; three or four
of the men are reputed to own as many as two hundred
head of cattle and fifty horses each. Wagons and good
horses were seen, and there were plenty of chickens
about. Men and women, especially the latter, looked in

The old man seemed glad to explain everything. He 756
was also willing to sell me some of his treasures. One 825
of them was a medicine-man's plume consisting of four
eagle plumes tied together so that they diverged two by
two. When used, these are held by the quill ends as a
handle and moved in the air forward and backward as
if dusting an object. When the young girls come of age [881]
they are "dusted" in this way from all evil. The implement was new and well made, and I wanted to buy it.
"The plume is very valuable," he answered; "with us it [435]
is at least worth as much as a horse or a cow." He
would, however, make it easy for me by letting me have
it for $2.50. I presented him with a pouch of tobacco
and a handful of candy, the cause of much interest to his
little grandchildren who had been clinging to the good-natured old man all the time that he was explaining.
He also promised to show me the so-called Montezuma's
Cave, in the peak of Baboquivari, some day.

In a light wagon which Pablo borrowed we started 361
on an excursion south, to be possibly extended beyond
the border to Pozo Verde. The day was moist and
warm. We passed several extensive summer rancherias
or temporales as they are usually called. The rude
fences of mezquite looked substantial and the Indian
ranches gave an impression of prosperity. At two places 361
there were dams also fenced in, but they were empty; 312
they had been made by scooping up the rich soil with 515
scrapers and horse-power. The water in such ponds
lasts only three or four months and is not for irrigating
purposes, but solely for the use of men and beasts. The

7: Lumholtz N-5 (1909-1910)1912
NU28 Papago NU28

361 Papagoes do not bathe in them; during the rains they
312 get their baths in the arroyos, men and women bathing
515 separately. There was not a soul to be seen anywhere, as the Indians were still at this time, the end of June, in or near the mountains with their cattle and horses.

133 From a lately established summer rancheria, called San Miguel, southward, the country assumes a different aspect, forming beautiful grassy plains or downs. The mezquites, far apart and small, take the place of greasewoods and the cacti have almost disappeared. There was an abundance of very dry grass of a whitish yellow hue. As the air was laden with moisture, it was to be expected that the coloring of sky and mountains would be fine toward sunset. The western sky beamed with the translucent color of light yellow or orange, while the mountains, which during the glaring light of the day had shown no color beyond a dull gray, appeared deep blue. Much more intense than the air-blue and complementary to that of the setting sun, the color extended to all the mountains around the great *bajio* (basin), while at its western edge a long narrow strip of light green, due to an unusual growth of mezquites, added to the variety. To most people it is not apparent that there is much coloring in any landscape except that caused by inherent qualities, as by vari-colored leaves of trees; if they would lie down on the ground and view the scenery horizontally, they would probably have their eyes opened from this unusual vantage point.

312 There is a well fifteen feet deep at a lonely Indian
361 ranch just on the border, but as the place was found to

be temporarily deserted, and there would be no one to 361
look after our wagon, we had to abandon our intended [312]
trip to Pozo Verde, the largest Papago rancheria at the
present time in Sonora. Its name, Green Spring, has [778]
the same significance in the Papago language, and the locality is important in the native mythology. Baboquivari rises about a thousand feet above the llano near the boundary line, losing itself in Mexico in low ranges and mountains.

On our return we made a dêtour into a rancheria called Sepánovak ("Smell of the Coyote"), which was situated in a narrow valley of the Baboquivari Range. It had been settled of late years and was small and unattractive. Discarded clothing was lying about, and the inhabitants looked like poor white people, although they owned lots of live stock. Judging from the fine looking fat horses and cattle down on the plains, a different opinion would have been formed of the owners; it was something like the disappointment one feels when a smart turnout of horses with driver and footman discloses ordinary-looking people inside the carriage. Natural and harmonious conditions are the only ones that count in life.

One interesting family, that of Ramon Cachora, lived 797
a little further up the valley from here, he, his two sons and his son-in-law having been leaders in a religious movement of a white man's stamp. They were so-called educated Indians, and a daughter of his had been to Carlisle. It was an anomalous case, for, strange to say, they had become converts to the revivalism of the

morrow in the afternoon, and some will not return until 231
the third day." It was the hottest time of the year—the [132]
end of June.

Three miles from here, just about where the llano 361 ●
begins, there rises a small hill, four hundred feet high, 172
called La Ventana. On the west side it has been fortified by the ancient people with half a dozen or more stone walls of the usual description. The walls are perhaps more massive than is the case at most places. The fortifications had a remarkably fresh look about them, as if they had been in recent use. On top, where blocks had been broken off to form walls and parapets, the underlying rock still looked as untouched by the hand of time as if the work had been done within two years. Circular or square enclosures of the usual type are seen on a natural terrace near the top. A fairly well constructed track leads up to the summit where a rattlesnake was resting in a cool cavity. A ground-squirrel was noticed, and on the hill-side two camping places of the gray fox were observed, each under a small bush, the ground having been worn quite smooth.

The vast plain is impressive from the top; the ranges, 133
enveloped in a blue haze, appeared small, Comobabi and Quijotoa in the north-west being the nearest. To the right of the Comobabi Range, in one place only, toward north north-west, the view was unobstructed as far as the eye could see. In the south-west the small hills near Sonoita were visible. The many arroyos on the west side of the Baboquivari Range are worthy of note; they are short, quite deep, and impossible for wagons to cross

CHAPTER V

COMOBABI—AN ATTRACTIVE INDIAN FAMILY—MARIANITA—A HORNED LIZARD THAT SPURTS BLOOD THROUGH THE EYE—AN ABORIGINAL WAY OF RECORDING EVENTS—THE PAPAGO CALENDAR—HARVESTING SAHUARO—HOW TO KEEP COMFORTABLE IN GREAT HEAT—A VISIT TO CHIEF ALVINA

Our next halting place was made at the rancheria of 361
Comobabi, comprising a somewhat extensive area on a
beautiful slope at the foot of the mountains. Most of
the houses here, too, were temporarily abandoned on
account of the sahuaro harvest. Early in the afternoon 574
we drove up to a house which impressed us as being the
most hospitable looking; the family were just seating
themselves on the ground outside, to eat tortillas and [262]
beans, the husband standing near by with his horse
saddled. They received us as if we had always known
them, although Pablo had not met them before. We
were invited to share their food, and, as soon as they
were made to understand that I wanted to buy all sorts
of Indian things, they cheerfully produced whatever they
had. I purchased two bags full of certain eatable seeds,
which I had much desired to procure, also a meal basket
made by the thirteen-year-old daughter, who had the
sweet-sounding name of Marianita, although neither [551]
Spanish nor English was among the family accomplishments.

285 The lady of the house had in active use two of those
482 peculiar burden baskets called *kibo*, in which the women
carry on their backs loads of wood, gourds, or pottery,
as the case may be. It consists of an attractive looking
net-work of mescal fibre, which has been produced from
the leaves after they have been first boiled. The net is
attached to a hoop which is fastened between four long
poles of sahuaro ribs and is supported by a woven band
of strips of zotol leaves that passes over the forehead.
This contrivance is getting to be rare in the Papago coun-
[492] try, with the introduction of mules and horses, and the
woman who owns one is with difficulty induced to sell it.
She spends considerable time in its manufacture, and in
an old-fashioned family like the present it is of very great
usefulness in every-day life. The black twine was from
302 her children's hair, which she cut once a year until they
were about twelve years old. I expressed an ardent desire to buy one that was standing outside of the house
against the wall, and, after having thought the matter
over for a couple of hours, she decided to sell the most
used one for five dollars, though she hated to do so; for
an additional fifty cents she would mend the net-work
and put in a new plaited band for the back and the head.
The offer was promptly accepted.

● Pablo and I made a tour of the houses of the ran-
361 124 cheria, some of them being three-quarters of a mile away.
[887] In two of them we found only old deaf women at home,
the rest of the families being at the harvest of the savory
cactus fruit. On our return, toward sunset, our Indian
573 friend and little Marianita were busily engaged in wash-

CHAPTER VI

HORSESHOE IN THE QUIJOTOA RANGE—INDIANS AS MINERS—SPENDING A NIGHT UNDER DIFFICULTIES—DELIGHTFUL NATIVES—A WOMAN'S GAME—SANTA ROSA RANCHERIA—THE GREAT HARVEST FEAST OF SANTA ROSA

● 361 312 After an affectionate leave-taking from good Chief Alvina, we departed northward for Horseshoe, eating, as we travelled along, delicious pitahayas with which we had provided ourselves. Eight miles before arriving at our destination we passed on the llano the pump-house that had once been placed over a deep well, which, according to trustworthy information, is five hundred and twenty feet deep. It has an abundance of water from an undercurrent and was once the pulse of a short-lived, though intense, mining activity. If the information that reached me is correct, the discovery of a bonanza silver mine of very rich ore started a boom here nearly twenty years ago. Several thousand people gathered, the usual fabulous prices were paid for corner lots, and telegraph and telephone lines were established with Tucson. To-day the silence of death reigns here; the roads have been obliterated, the houses have disappeared, as also have the telegraph poles, and there is no sign of any former activity. I should have felt inclined to consider the whole thing a fable but for the unattractive remains of the pump-house, which the Indians have annexed, building a

few houses near it and naming their rancheria from the 361 ●
tall chimney. Five miles north is a rancheria called 312
Sikulhímat ("where the water goes around." *Síkul*,
round). Here, according to the Indians, the drainage [133
of rain water flows toward the Gila River; south of that 823]
place it flows toward Mexico.

Horseshoe is the name of a once noted placer mine, 316
the surface of which has been worked out. There are
gold mines of a similar nature around the southern end
of the Quijotoa Range. Judge Day has a store at Horse-
shoe and bu[illegible] gold from the Indians, who still, during
the winter, keep up the "dry-washing" process here,
using for the purpose the machines that are common to
the neighboring district of Altar, in Sonora. The Indians
are even able to make the machines themselves. Judge
Day is a man of intelligence and much common-sense,
and, having lived here since 1893, was able to give re-
liable information about matters pertaining to the region.
According to him the padres from San Xavier Mission,
two hundred years ago, found the placer mines of Qui-
jotoa. He showed me some nice nuggets of small sizes
which he had lately bought. Five years ago the Ind-
ians found free gold in a piece of quartz which was
worth one thousand six hundred dollars. After that
eighty Papago and a few Yaqui Indians worked here for
half a year, taking out in value between ten thousand
and twelve thousand dollars, Judge Day buying most
of the gold. The relations between the miners—all 316
Indians—were cordial. When any of them had found 571
a rich spot, he would tell it to the others, and next morn-

looking man and apparently younger than herself. He 854
took the howling nuisance gently and walked resolutely
off into the hot sun. I wondered what was going to
happen. He went straight to the well, gave the fretful
youngster a bath, and returned in a few minutes with his
purpose accomplished.

It may be of interest to note the manner in which the 000
daughter of the American family at Horseshoe, who
when twelve or thirteen years old was in poor health,
grew to be strong and well. Being brought up with the
Indians, whose language she speaks, she taught herself
the accomplishment of every Indian girl, to carry a water-jar
on her head. This made her healthy, and now she
weighs one hundred and fifty pounds.

To the north of here, only about six miles, travelling 361
by the track, is an important rancheria, Tjíuvak 487
("Where Something Decayed"), lying among low hills
in the Quijotoa Range, where a road passes from east
to west. I was desirous of seeing the best-known
basket-maker who lives here, but she, like the rest, had
just left for the summer ranch. The place looked much
like a village, but was temporarily abandoned on account
of the season, so we continued our journey northward
by an excellent road that had been furnished mainly
by nature. It was a slightly downhill drive, the country
now almost imperceptibly sloping toward the Gila
River.

We arrived late at a summer rancheria with the somewhat 574
disconcerting native name, "Dead Old Man's
Well." Here we expected to find the people of the win-

526 ject with their poles. Each game was played with much agility and lasted only a few minutes, the participants keenly enjoying the sport. Formerly as many as twenty women on each side took part in this game.

774 I ventured to take snapshots and, strange to relate, it
524 was not resented. A boy showed me how to swing a bull-roarer, and we all had a good time. Though the
241 wearing apparel of these people and most of their uten-
191 sils came from the white man's store, still, neither English nor Spanish was spoken, only Papago. They be-
609 haved something like natives who have not been much in contact with whites, and these "poor heathen" were the nicest Papagoes I met on my whole expedition. The entertaining crowd would sometimes retire as one man, then after a while they would return again; they were curious without being troublesome. One of the humor-
361 ous sisters told me that in the rancheria of Santa Rosa,
609 which was my next goal, there was much to be seen that would interest me, if I made friends with the principal men. She also had a house there, she said, which was at our disposal, and she gave us directions as to how to find it, for Santa Rosa was a big place.

361 It is, in fact, the largest summer rancheria in the Papago tribe, and people from several clusters of winter habitations gather here to the number of about five hundred. The houses are scattered over an area of nearly two miles square. Its native name is Kuâtshi (Big Peak). I entered this old-fashioned rancheria with much expectancy of gaining further knowledge of the beliefs and customs of these people. Water from the

recently fallen rain was standing in pools here and there 361 in the rough road. Inside of the rude mezquite fences a surprisingly large amount of weeds was flourishing, and beautifully green. In the midst of this mass of verdure the Indians were busy ploughing and sowing, the weeding being done later. Here and there a rain-storm might be seen at a distance, in the north, east, and south, but the atmosphere as a whole was clear, and everything looked beautiful in the late afternoon sun.

After some parleying and searching and travelling, 343 we found our Juan, a tall, strong-looking Indian with a benign expression of countenance. Near this man's house was to be our promised lodgement. He pointed out to us a large, dome-shaped straw house, of old style, about a hundred yards away. Crawling in through the door-opening, which was not quite two feet high, I found the inside very spacious. Provisions were stored here, and a large granary basket gave me joy at the prospect of its possible acquisition. The room was clean and cool. Nevertheless, being unusually dependent upon fresh air, I feared this would be a very inconvenient abode for me, so I crawled out again and addressed myself to an old man who was occupied outside in digging up and destroying the passages of some pernicious red ants. On our arrival I had noticed him clearing away rubbish 000 in front of an attractive little house near by made of upright poles so that the air had access everywhere. I proposed that he should rent me the little dwelling.

He readily consented, asking me to state a price, and I suggested fifty cents a day, which was promptly ac-

778 782 offering. The jar is buried in the ground and a small mound made above it, the central part of which is covered by a flat stone. Ocotillo sticks, stripped of bark, are placed upright, two toward the east and two toward the west, and empty cartridges, bits of glass, small sea-shells, as well as pebbles, had been deposited here. The little shrine is just outside of the rancheria, toward the end of the slope that runs down gently from the mountains near by. The rain-water, in times gone by, had [134] formed furrows and small arroyos everywhere, making the country look wavy. The earth around the roots of the ever-present greasewood bushes resists the short-lived torrents, and they presented the same appearance of growing high above the ground on top of mounds which usually is due to the action of the wind. At one place where the ground was level a vast number of light yellow flowers were growing, forming a carpet-like covering among the greasewood. Quantities of broken pottery were lying about to the north-east of the small shrine and here, according to tradition, was the former site of the rancheria.

● 361 In spite of my satisfactory meeting with the Keeper of the Smoke, he seemed to have efficiently blocked my purchase of any more important objects, so I decided to make a tour of the several rancherias to the north, where the sway of my uncompromising and despotic friend did not reach; perhaps on my return conditions might change. The next rancheria to the north is Ánekam, hardly three miles away, but it is a community distinct from the preceding one and even more primitive. In

ordinary weather the inhabitants of one place can hear 361
the singing of those at the other on festive occasions.
The days were warm now, hardly any day registering [132]
less than 100° F. in the shade, often more. But climatic
conditions matter less than the attitude of the people
one meets, and here there was an unexpected charm
of simplicity and unobtrusive inquisitiveness which re- [181]
minded me of former happy occasions in my life among
natives. A sahuaro feast had been concluded the day
before. People from the surrounding country were still [609]
lingering and my arrival furnished an excuse for an addi-
tional delay. Crowds of people, fifty or more, kept
around me wherever I went.

The Papagoes in the Santa Rosa valley are less 181
spoiled by contact with civilization than in any other 609
part of their country. From my note-book at this time I take the following remarks: "I have never yet met with a cross Papago; they are always amiable. In my quest for specimens they smilingly admit me to their store-rooms to inspect their fine granary baskets and other kinds of baskets and utensils, and allow me to look around inside and outside of the houses as much as I like. On the other hand, they have no tact; they seat themselves unconcernedly in a folding easy chair of mine, or go to the box in which I keep my collections and take out all the things to look at. They are always on hand at meal-times; they dive with delight into the box of crackers set before them, and are very fond of coffee."

They were rather a crude type, but pleasant to deal 000
with, and were continually bringing things for me to buy.

411 821 arrow-heads is also found among the Papagoes, though one would think that sufficient time had not elapsed since the days when the natives themselves made such objects. Their very name is lightning stone (*víbom*), and one man who presented me with one assured me that he found it by searching the ground after lightning had struck near his house. Sometimes, when lightning strikes a tree, the Indians will dig in the ground underneath for arrow-points. It should be noted in this connection that these Indians fear lightning, although they are not afraid of thunder. [224 Bows and arrows are still used in Ánekam in hunting rabbits, quail, doves, etc.

● 361 Our next stop was made at Kukómalik, fourteen miles further north, a new rancheria which owes its existence to a fine well left by Americans who had to abandon an attempt at cattle-raising. At only nine miles' distance from there, in the north-west, is Kohatk; this is the first Pima rancheria, and the principal one of four rancherias or villages which are found in a small extent of country hardly thirty miles long, beginning immediately south of the Casa Grande station on the Southern Pacific Railroad. It may be termed the Kohatk country, being inhabited by the Kohatk people, who are Pimas that have, to some extent, retained their originality. They have, at least, been less affected by the white man than their confrères at the Sacaton Reservation, and may possibly for a few years offer a fair field to the student. 136 The country traversed after leaving Ánekam was singularly devoid of animal life. Not even a jack-rabbit seemed able to live here.

312 There should be no great difficulty in making dams, and still less in sinking artesian wells. I was told of a very convenient place for a large dam in the low range north of Temporales, near the boundary line, three or four miles away. This valley averages eight or ten miles in width; a few miles east of Sonoita low mountains draw it together, but below that settlement it widens again. Only the middle part, at a width of one or two miles, probably more at certain places, is serviceable. There may be found a few sandy patches in certain localities, but, taking it all in all, this extensive stretch of tillable soil would be well worth investigating by people interested in agricultural pursuits, and one may expect at no distant date the reclamation of what is now practically a wilderness.

317 At the first Indian rancheria which we passed here, we found that some of the inhabitants had just returned from a salt expedition to the Salina de San Jorge on the Gulf. There were four full loads of salt lying scattered outside of one of the houses. The salt had been placed
[492] in discarded flour sacks, two being carried inside of a packing bag of mescal fibre, which is slung over the back of the animal and constitutes a load. Coarse grass is wrapped around each sack for protection, and the bag when in use rests on two rolls of grass, which serve the Papago as pack or riding-saddle, as the case may be.

361 This summer rancheria as well as the next, called
[312] Represa de Enrique, is quite populous. At the latter place the Indians possess a large dam. Our arrival
CCA caused much excitement at first, due to a misapprehen-

261 having a delightful time meeting friends and enjoying
476 the gifts of autumn. "When she decides to go home she will receive loads of provisions of the new year," remarked my interpreter. One of the principal men of Quitovac was making a round of calls for the same purpose. He had only a small field himself, for at Quitovac there is much competition with the Mexicans, but, as an Indian said, "he has only to sit down; all is coming to him."

000 On our arrival at La Nariz, Thursday, November 11, a cold, disagreeable wind from south south-west was blowing over the llano, after dark changing to westerly, whereupon it suddenly became northerly and warmer, the sky clearing of some threatening clouds in the south. In the small hours of the morning I awoke, to my surprise, from light rain falling on my tent, which lasted for half an hour. I had made friends among the Indians at the last place visited, and their compatriots here did their best to be obliging. The next day all the men gathered outside of my tent, and we had a five hours' talk on matters
● 361 of interest to both sides. La Nariz is an Indian rancheria,
103 its name being derived from a near-by mountain which, from a certain point of view, presents the profile of a human face with a well-marked nose.

361 There were only five families here living in rectangular
[342] houses of ocotillo poles laid horizontally and plastered with mud. I found them pleasant to deal with and anxious to preserve what there was left to them of ancient
756 beliefs and customs. The soul of this endeavor was an
346 elderly medicine-man, the principal man of the place.
841 Two medicine lodges were noticed here, one of them

243 14, and sometimes it comes as early as the middle of October. However, frost does not injure maize that has reached maturity.

●361 Before proceeding to Sonoita, which is only twenty-three miles from here, I made a trip south to Quitovac, where I expected to find mail-matter awaiting me. There used to be some gold mining here, but the houses that make up the only street are now mostly abandoned. Two or three Mexican families live there and a small store is maintained. The main population consists of Indians, who live all around, some of them being possessors of cattle and a few having small fields. It grew dark before we arrived, and while we were arranging our camp in the quiet evening a young Indian rode up like a whirlwind as fast as his horse could gallop, stopping as suddenly as he had appeared. This is the Mexican way of "showing off" or making oneself conspicuous, and was distinctly discouraging to one who was looking for primitive people. My two kodaks were lying on the ground and miraculously escaped his horse's hoofs.

312 The principal attraction of Quitovac is the sufficiency of water which at all times oozes forth in various small springs at the edge of the low mesa, so-called. The latter is a deposit of calcareous matter which a quarter of a mile wide stretches behind the houses for a mile and a half in the general direction from north-west to south-east. Fossil remains have been found here, as well as at a ranch, Represa, five leagues east, where in making a dam some large animal was encountered five feet below the surface. Also at Bánori and other places "bones of giants" have

184 willow as material. Arrows were made from the arrow-bush.
411 Arrow-points of hard stone have occasionally been
found in that country, but never stone axes.

184 They had foot-races and also practised the game of
[526] throwing with the end of a thin pole two short pieces of
wood which are linked together. (Page 89.) In the
184 winter time they lived at a higher elevation in the moun-tains
221 where they erected grass huts. Once a year a jour-ney
[439] was made to Yuma to barter with the Indians there,
and maize, tépari beans, and squashes were exchanged
for baskets and sea-shells. Remnants of these people are
184 living at Quitovaquita and the Growler Well, both places
● 361 in Arizona. A few families are said to live near the rail-way
station, Adonde, near Wellton, on the Southern Pacific
line.

[pp. 333 to 343 not processed]

578 and harmony reigned, but now all that is changing. The Indian who has to work for his living finds it hard to make [511] ends meet, and to support additional people becomes impossible, hence quarrels and unpleasant conditions begin to manifest themselves.

● 361 Formerly they lived in large rancherias, but in the last 178 twenty years the tendency has been to scatter. They have been touched by commercialism and are now showing [231] energy in acquiring cattle and other property. Formerly, too, a family owned a couple of cows and a horse or sometimes they had no animals, but during the last twenty years the tribe has acquired a considerable number of live-stock, often twenty cows and from ten to twelve horses to a family. Four or five families are the individual possessors of a few hundred head of cattle, but there is no difference in their mode of life from that of the rest.

178 The women are clever in adapting themselves to the new conditions. I know of an instance where the wife made a shirt for her husband without ever having learned how to cut it out, and the garment, when finished, was very creditably done. What the girls desire most to acquire at school is the knowledge of music and dressmaking. Some of them have learned at the Presbyterian schools to play the piano, which redounds much to the credit of the schools. To develop man's sense for harmony and the beautiful, whether by music or other refining pursuits, is as important as to teach him to read and write.

The Papagoes recognize the white man's superiority and have begun to make money an aim in life, which may

APPENDIX II

RANCHERIAS, PRESENT AND PAST, OF THE PAPAGO

WITH INTERPRETATIONS OF THEIR NATIVE NAMES

I HAVE found it convenient to treat Arizona and Sonora separately. 103
The division into winter and summer rancherias has been maintained,
although it is sometimes difficult to make a strict distinction. Instead 361
of winter rancheria I use only the word "rancheria," which comprises in the list, as indeed also in actuality, especially the winter habitations, including also at times permanent abodes.

The words "summer rancheria" designate the temporary habitations resorted to for the purpose of agriculture during the capricious showers of the summer. The Indian name for summer rancheria is *oóitak*, field for cultivation (*milpa*). The common Mexican expression for this kind of ranch, both in Sonora and southern Arizona, is *temporales*, which means ranches dependent for their water upon showers, a Spanish-Americanism, also used in Peru. (Bandelier.) *Rancho de temporal:* "ranch of rain-storm" is the name for a single ranch of this kind. "Winter rancheria," used in the above sense, is indicated by the letter *r*; "summer rancheria" by the letter *s*.

The four Pima rancherias of the Koḥátk people are given at the end of the Arizona division. At the end of the Sonora division will be found the names of the principal camps of the sand Papagoes (*areneños*).

I.—ARIZONA

Áaivónam, Rancheria. "Both Sides Hat." (*Áai*, both sides; *vónam*, hat.) A mountain there looks like a hat, seen from either of two sides. South-west of Santa Rosa, *s*, in the Quijotoa Range, near Brownell.

Áktjin, Summer Rancheria. "Arroyo Mouth." (*Ák*^{1}, arroyo; *tjin*, mouth.) Two and one-half miles south of *Mâkumivóoka*, *r*.

103 *Áktjin*, Rancheria. Three or four miles south of Maricopa railroad station.

361 *Ālitjukson*, Summer Rancheria. "Little Tucson" or, more correctly, "At the foot of (*shon* or *son*) small (*āli*) black [illegible]*k*) hill." Three miles from Artesa Range, on the north side of the road between Indian Oasis and Fresnal, *r.*

Āloitak, Summer Rancheria. "Little Field." (*Āli*, small, child; *óitak*, field, milpa.) Two miles south-east of Santa Rosa, *s.*

Ánekam, Summer Rancheria. "Where the *an* tree grows." (*An*, a slender tree, belonging to the *leguminosæ*. It has long leaves and pink flowers; may possibly be the desert willow.) Half of the people are from Tjúupo, *r.*, in the north-west.

Aquimuri, Rancheria. In Papago, *Akimuri* ("River," "Arroyo"). East of La Nariz, *r.*, Sonora, Mexico, three miles inside of the boundary line. Three or four families live here. There is a pond here.

Barajita, Rancheria. In Papago, *Tonóka* ("Knee"). Situated on the east side of the Ajo Range, five miles from the northern point, near the range.

Bates's Well, also called Growler Well or *El Veit*. In Papago, *Tjunikóatk* ("Where there is sahuaro fruit." *Tjúni*, sahuaro fruit). Twenty miles (seven leagues) north of Quitovaquita, *r.* Some of the former sand people live here. At present this is a mine and store, a few Americans residing. Good well.

"*Bitter Well*," Rancheria. In Papago *Sivuáxia*. (*Siv*, bitter; *váxia*, well, waterhole, also spring.) Two miles east of the Vekol mine. Four to five families are said to live here.

Brownell, mine, store and post-office in the Quijotoa Range, eighty miles west of Tucson. (*See* Aaivónam.)

Cacate, Summer Rancheria. In Papago, *Káka* ("Clearing"). South-east of Gila Bend and west of Vekol mountains, about thirty-five miles west of *Kohâtk* (Pima). The population, according to information given me by Mr. T. Childs, of Batamote, is about two hundred, old and young, and is much mixed.

Cajilon, Rancheria. In Papago, *Áakta* ("Horn lying." *Aak*, horn). Fifteen miles south of the Vekol mine. This is an old rancheria, now probably abandoned, the former inhabitants living in Cacate, *r.*

7: Lumholtz N-5 (1909-1910) 1912

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Charco de la Piedra, Temporales. In Papago, *Hotashônevo* (Pond at the base of the rock." *Hóta*, stone, rock; *shon* or *son*, base, at the foot of; *vo*, pond). Twenty to twenty-five miles west of Pozo Blanco, *r.* Indians come here from Pozo Redondo, *r.*

Comobábi, Rancheria. In Papago, *Komváxia* ("Well where the *kom* tree grows." *Kom*, tree with red berries, called *cumaro* in Spanish; *váxia*, well (Spanish, *pozo*), or a hole dug in the sandy bed of an arroyo to reach water, also spring. If it were the tree's well, then it would be called *Komváxiak*). In the Comobabi mountains, seven miles distant from Kavváxiak.

Covered Well or *Pozo Tapado*, Rancheria. In Papago, *Maish^{t}vaxia* (*maish^t*, to cover; *váxia*, well, waterhole, also spring). Fifteen miles west of Indian Oasis; one and one-half miles west of *Tjiuvak*, *r.* Inhabited by ten or twelve families.

Coyote, Rancheria. In Papago, *Pantak* ("Where the coyote is." *Pan*, coyote). In the northern part of Baboquivari Range. Situated two miles south of the road when at two miles' distance from Maishe's Well.

Cubo, Temporales. In Papago, *Kuvo* ("Big Pond." *Ku*, large, big; *vo*, pond). It is five miles south-east of Barajita, *r.*, twenty to twenty-five miles south of Ajo copper mine, and about the same distance north-west of La Nariz, *r.*, Sonora, Mexico. This is a large summer rancheria on the llano. Indians come here up to the number of one hundred and fifty souls from the rancherias Sauceda, Cacate, and Barajita, and from Gila Bend, to cultivate the soil.

El Mezquite, Rancheria. In Papago, *Vâtjeki* ("Small Waterhole." The hole was made and water gathered by digging with a basket). North of La Nariz, *r.*, Sonora, Mexico, nine miles (three leagues) from the boundary line, in a basin near Mezquite Range. Very old, probably now abandoned.

Fresnal, Rancheria. It consists of three rancherias in the western and middle part of Baboquivari Range.

1. *Kóxikux* (*Kóxi*, mulberry tree; *kux*, where it stands) is the most northern.
2. *Tshtul̄iseik* ("Willow Forest." *Tshtul̄i*, willow; *seik*, forest). One mile south of Kóxikux.

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3. *Pitôikam* ("Where there are ash trees." *Pítoi*, ash tree). Three miles south-west of *Tshíul̄iseik*. This latter rancheria is the largest of them. Probably there are no less than five hundred souls in the three rancherias. Nos. 1 and 2 are situated one and one-half miles in among the foot-hills, about four thousand two hundred feet above sea level; No. 3 is at the beginning of the llano.

Gtikivok, Summer Rancheria. "Where the plough was lying." (*Gtik* (also *ktik*), plough; *vok*, lying.) South of Indian Oasis.

Horseshoe, Placer gold mine, store, and post-office. In Papago, *Komaktjívurt* ("Gray Soil." *Kômak*, gray; *tjívurt*, soil. The name alludes to the presence of *caliche*). In the Quijotoa Range. The gold digging itself was formerly alluded to as *ól̄ak*, "Where there is gold" (*oro*). At present only the Indians occasionally dig for gold.

Indian Oasis, store and post-office, seventy miles west south-west of Tucson. (*See Kômoktetuvâvosit.*)

James' Ranch, Rancheria. In Papago, *Vavstjâutak* ("Green Rock." *Vav*, rock; *stjâutak*, green). In the Artesa mountains, a couple of miles south of Indian Oasis.

Jiquibo, also called *Pirigua*, Summer Rancheria. "Where there is a rough mountain." (In Papago, *Hîkibon* or *Hikjovan*. *Hik*, rough, ridged. Hair that has been cut short is also said to be *hik*.) Situated on a llano in a kind of basin, north-east of Ajo copper mine. There are several waterholes or wells here, and the Indians are said to use the water for irrigating purposes.

Kâitjimök, Summer Rancheria. "Burnt Sahuaro Seed." (*Kaitj*, seed of the sahuaro fruit; *mök*, burn.) Another name for Santa Rosa, *s.*

Kakota, Rancheria. "Crooked." It is on the south-west side of the Quijotoa Range, eight miles south of Horseshoe. Indians settled here, falling heir to a well that some Mexicans abandoned when the placer mining of the place gave out.

Kóvol̄ik, Summer Rancheria. "Hill." Six or seven miles south of *Kuôitak*.

Kavvâxiak, Rancheria. "Badger's Well." (*Kav*, badger; *vâxia*. *See under* Comobabi.) In the Comobabi mountains, about six miles north-east of Noria, *r.*

7: Lumholtz N-5 (1909-1910) 1912
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Kŏl̄ipatvŏoka, Summer Rancheria. "Dead Old Man's Pond." (*Kŏl̄i*, old man; *pat*, dead, something of the past; *vo*, pond.) Fifteen miles north-east of Horseshoe.

Kômal̄ik, Summer Rancheria. "Mountain Crest." Name is derived from a low ridge north of the place. Ten miles south-west of Fresnal, *r.* It has a pond.

Kômoktetuvŏvoait, Rancheria. "Where the turtle was caught." (*Kômoktet*, turtle.) It is a mile from Indian Oasis and was established five years ago.

Kukômal̄ik, Rancheria. "Big mountain crest." (*Ku*, large, big; *kômal̄ik*, mountain crest.) Fourteen miles north of *Ånekam*. It is twenty-five to thirty miles west to south of Silver Bell. The village is inhabited all the year on account of a well left by an American. Its fields are insignificant. The inhabitants go to *Ånekam* for religious ceremonies.

Kuŏitak, Summer Rancheria. "Large Fields." (*Ku*, large; *ŏitak*, field, milpa.) Thirteen miles south of the "Pumphouse."

Kutjŭupo, Rancheria. "Big waterhole in the rock." (*Ku*, big; *tjŭupo*, rocky cavity containing water, natural water tank; Spanish, *tinaja.*) In the western foot-hills of Baboquivari Range, eight to ten miles north of Fresnal, *r.*

Kvŭtatk, Summer Rancheria. "Mezquite Root." (*Kvi*, mezquite; *tatk*, root.) Thirteen miles north-west of Indian Oasis; one-half mile from the "Pumphouse."

Kvŭvo, Rancheria. "Below," "Low Down." One and one-half miles north-east of Santa Rosa, *s.*

La Lesna, Rancheria. In Papago, *Shuunăkia* ("Hanging Wolf." *Shŭu*, wolf; *năkia*, hanging). Three miles from the boundary line, eleven miles (four leagues) north-west of Banori, *r.*, Sonora, Mexico.

La Moralita, Rancheria. Papago name unknown. It is ten or twelve miles north-east of La Nariz, *r.*, in Sonora, Mexico.

La Quituni, Summer Rancheria. In Papago, *Åktjin* ("Arroyo's Mouth." *Åk*, arroyo; *tjin*, mouth). North-west of La Nariz, *r.*, Sonora, Mexico, three miles from the boundary line. It used to be visited by Indians from Sonoita, but has been abandoned over ten years.

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Los Camotes, Rancheria. In Papago, *Shâatkam* (Name of an edible root). Situated three miles west of the Mezquite Range, near the boundary line, northward of La Nariz, *r.*, Sonora, Mexico. Two families live here, who go to Sonoita when the water gives out.

Makumivóoka, Rancheria. "Caterpillar Pond." (*Mâkum*, a yellow, black-striped caterpillar, boiled and eaten by the Papago. It appears in August. *Vo*, pond.) It is nine miles south-east of *Kvívo*, *r.* (near Santa Rosa, *s.*)

Milpitas, Summer Rancheria. In Papago, *Kókul̄i* ("Corral," "Enclosure"). Twelve miles south-east of Pozos Muchos, *r.* (northern part of the Papagueria).

Nóipokam, Rancheria. The name is of Spanish origin, meaning unknown. It is north-west of Horseshoe, in the Quijotoa Range, two miles from Brownell.

Noria, Rancheria. In Papago, *Nóol̄ik* (Corruption of the Mexican name which means "spring"). It used to be called in Papago, *Vípenak* ("Where *vípenoi*, a small cactus, is growing"). It is a short distance west north-west of Indian Oasis. This is an old village and it has more people now than before.

Notovaxia, Rancheria. "Well where the sacaton grass grows." (*Not*, sacaton grass; *váxia*, well, waterhole, also spring.) In the northern part of the Comobabi mountains.

Óotovaxia, Rancheria. "Sand Well." (*Óot*, sand; *váxia*, well.) In the northern part of the Comobabi mountains.

Pelon or *Rancheria del Pelon*, Rancheria. Also called "Lower Village." In Papago, *Kvívo* ("Below," "Low Down," namely, on the river). It is in Gila Bend Papago Reservation, tèn miles from Gila Bend railroad station.

Pirigua, Summer Rancheria. (*See* Jiquibo.)

Pisinemo, Summer Rancheria. In Papago, *Piśinemoi* ("Bear's Head." *Piśin*, brown bear; *mo*, head.) It is fifteen miles north-west of the south end of the Quijotoa Range.

Pozo Blanco, Rancheria. In Papago, *Komváxia* ("Well where the *kom* tree (Spanish, *comaru*) grows"; *váxia*, well, waterhole, also spring). Near the Quijotoa range, eight miles south-west of Brownell; four or five miles west of "Covered Well." It is forty miles from Pozo Redondo, *r.* Four or five families live here.

Pozo Colorado, Rancheria. In Papago, *Vŏkivăxia* ("Red Well." 103
Vŏk, red (usually *sŏvŏk* or *suvăk*); *văxia*, well, waterhole, also 361
spring). Near Pozos Muchos, *r.* It is a very old rancheria, inhabited by two to four families.

Pozo de Federico, Rancheria. (*See* Wall's Well.)

Pozo Redondo, Rancheria. In Papago, *Sikorttjŭupo* ("Round Tank." *Sĭkort* (*sĭkul*), round; *tjŭupo*, rocky cavity with water; in Spanish, *tinaja*). It is about twelve miles east of Ajo copper mine, on the east side of the Pozo Redondo Range. These Indians have fields in Cubo, *r.*

Pozo Tapado, Rancheria. (*See* Covered Well.)

"*Pumphouse*," Rancheria. About twenty years ago a mining company made a deep well and a pump with a large chimney, eight miles south-east of Horseshoe, in the Quijotoa Range. The well was later abandoned. Some Indians established themselves here, and this small rancheria is now usually called *Văinomkux* ("Iron prominence." *Văinom*, iron; *kux*, standing, prominent).

Pozos Muchos, Rancheria. In Papago, *Moivăxia* ("Many Wells." *Mŏi*, many; *văxia*, well, waterhole, also spring). South south-east of Gila Bend, eight miles easterly of Sauceda, *r.* Eight to ten families live here. They have several waterholes or wells and are said to irrigate with this water.

Quitov[illegible]uita, Rancheria. In Papago, *Ālivaipia* ("Small Springs." *Āli*, small, child; *vaipia* is plural of *văxia*, well, waterhole, spring). South of Ajo copper mine, just within United States boundary. This is a locality with many small springs of good water. It is permanently occupied by one or two families. Some agriculture.

Rincon, Rancheria. Two miles north of *Sepânovak*, *r.*

Rinson, Rancheria. In north-eastern part of Baboquivari Range. A large rancheria, belonging to a civilized Papago. According to my interpreter, Pablo, there are no other rancherias on the eastern side of Baboquivari Range.

San Lorenzo, Rancheria. In Papago, *Sil̄inakik* ("Hanging Saddle." *Sīli*, saddle, a corruption of the Spanish *silla*). Twelve miles east south-east of *Makumivŏoka*.

San Miguel, Summer Rancheria. Five miles south from *Tjŭul̄ik*, *s.*; ten miles north of Monument 143 on the boundary line. Of recent date.

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San Pedro, Rancheria. In Papago, *Vtopol̄i* (a kind of tobacco). This is a new rancheria in the Roskruge Range, seventeen miles' distance north from Hayes's Well, thirty-six miles from *Makumivôoka*, r.

Santa Rosa, Summer Rancheria. In Papago, *Kuâtshi* ("Big Peak." *Ku*, large; *âtshi*, narrow mountain). The name is derived from a mountain near by, to the west. In Santa Rosa Valley. This is the largest summer rancheria, and is probably also to a certain extent inhabited in the winter. The fields extend nearly two miles in either direction.

San Xavier del Bac. In Papago, *Vāk*, which means "where the river reappears in the sand," a "sink" of the river.

Sauceda, Rancheria. In Papago, according to information from Mr. F. Wall, called *Tshiul̄ikami* ("Where willow grows." *Tshtul̄i*, willow). South of Gila Bend railroad station and seventeen miles east north-east of Batamote ranch. This is the main rancheria of the north-western part of the Papagueria. I am informed by reliable authority that there are fifty to seventy houses here. In 1910, on account of want of water for the cattle, only thirty to forty individuals lived here.

Sepânovak, Rancheria. "The smell of the coyote." (*Pan*, coyote.) Small rancheria in a narrow valley in the middle part of the Baboquivari Range.

Stil̄imŏk, also called "Upper Village," Rancheria. "Burnt Saddle" (*Sil̄i* (Spanish, *silla*), saddle; *mŏk*, burn). In Gila Bend Papago Reservation, about eighteen miles north of Gila Bend. In 1910 it had fourteen families, immigrated less than twenty years ago, from Sauceda, *r.*

Sikulhĭmatk, Summer Rancheria. "Water going around." (*Sĭkul*, round.) Five miles north of the "Pumphouse," east of Horseshoe. The water-shed is here, between water flowing into the Gila River and to the Altar River.

Sûsuta, Rancheria. In Papago, *Shôsetak* ("Where water gathers"; *shôtak*, water.) Three leagues north-east of La Nariz, *r.*, Sonora, Mexico. In the winter five or six families live here. The water lasts sometimes for a year.

Tecolote, Summer Rancheria. In Papago, *Tjŭkutko* ("Owl's Cry." *Tjŭkut*, owl; *ko*, cry). An old rancheria fifteen miles west southwest of Indian Oasis. 103 361

Temporales, without name yet. Nineteen miles east of *Makumivŏoka*, *r.*

Tesota, also called "Second Village," Rancheria. In Papago, *Úupatoitak* ("Cat-claw Field." *Úupat*, the tree called cat-claw, in Spanish, *tesota; ŏitak*, field for planting, *milpa*). In the Gila Bend Papago Reservation, five and a half miles east of Pelon, *r.* It consisted in 1910 of eight families, immigrated from Pozos Muchos, *r.*

Tjeavolītak, Summer Rancheria. "Where the barrel cactus is." (*Tjeŭvolī*, barrel cactus; in Spanish, *bisnaga.*) Two miles from an abandoned ranch called Fresnal, between Maishe's Well and Indian Oasis.

Tjiuvak, Rancheria. "Where something rotted." Five miles north of Horseshoe.

Tjotomvaxiaka, Rancheria. "Bear's Well." (*Tjŏtom*, bear; *vâxia*, well, waterhole, also spring.) In the Baboquivari Range, about eight miles south of Fresnal, *r.*

Tjŭulīk, Summer Rancheria. "Corner." On the plains, south southwest of Fresnal, *r.*, six miles south of *Kŏmalīk*, *s.*

Tjŭupo, Rancheria. "Rock cavity with water." Name alludes to some cavity in the rock containing water, a natural tank; Spanish, *tinaja.* In the Quijotoa Range, perhaps ten miles north of Brownell.

Tŏopit or **Tŏapit*, Summer Rancheria. "White Clay." (*Tŏa* or **Tŏa*, white; *pit*, clay.) Twelve miles north of Jiquibo, *s.* Seven or eight families come here.

Topahua, Summer Rancheria. In Papago, *Kŏksumök* ("Burnt Dog." *Koks*, dog; *mök*, burn). Seven miles south of Indian Oasis.

Tŏobitk, Summer Rancheria. "Crooked." Ten miles from Cacate, *s.*

Tshŏvo, Summer Rancheria. "Long Pond." (*Tshi*, long; *vo*, pond.) Eight miles south-west of the south end of Quijotoa Range.

Tucson City. Originally a rancheria. In Papago, **Tjukson* ("At the foot of the black hill." **Tjuk*, black; *son* or *shon*, at the foot of). The name alludes to the hill nearest to the Santa Cruz River, and near that on which the Desert Botanical Laboratory is.

7: Lumholtz N-5 (1909-1910)1912

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Pima

103 *Vámulī*, Summer Rancheria. "Basin" (low place where water gathers). It is near *Giśkivok*, *r.*

361 *Vóvemo*, Rancheria. In Papago, "Mountain with Head." (*Vav*, mountain; *mo*, head.) The name alludes to a low ridge on top of which is a rock. Ten or twelve miles (four leagues) south of Indian Oasis. Many Indians here.

Vóvkux, Rancheria. "Projecting Rock." (*Vav*, mountain, rock; *kux*, standing, prominent.) In the northern part of the Baboquivari range; three miles from Hayes's Well.

Vopēlohavóoka, Summer Rancheria. "Burro Pond." (*Vópēlo*, burro, donkey; *vo*, pond.) *Ha* has no special meaning; usually it means "there" or "what." Eight or nine miles south-west of Topahua, *s.*

Wall's Well or *Pozo de Federico*, Rancheria. In Papago, *Kóokatsh* ("mountain crest"). Sixteen miles east of Bates's Well, right at the northern point of Sierra del Ajo. There used to be some mining done here, which has been abandoned, a few Indians from Barajita afterward settling there and taking possession of the wells. Information from Mr. Frederick Wall, who discovered and named the Growler mine.

PIMA RANCHERIAS

South of Casa Grande railroad station, on the Southern Pacific, are found the following four Pima Rancherias, inhabited by the so-called Kohátk people.

Kohátk, Pima Rancheria. "Depression." (Literally: "Where a hollow has been made" through water or other agency.) It is situated due east of the Vekol mine, and nine miles north-west of *Kukômalik*, a Papago rancheria. Elevation, 2,500 feet.

Tatamûmerikut, Pima Rancheria. "Where the foot had run." (*Tat*, foot; *mûmeri*, run; *kut*, where.) It is four miles north of the Jack Rabbit mine, is very old, and foot-racing is said to have started here. Foot-races, accompanied by betting, are still practised, two or four men running together at one time. They have also races called *wítshuta*, where a ball is tossed along, similar to those in use among the Tarahumares of Chihuahua, Mexico.

Tshŭhutsho or *Tjŭitjo*, Pima Rancheria. "Caves." Name alludes to some natural cavities in the ground (*tshŭhu*, cave) nine miles from Casa Grande railroad station and from *Vaivavo*, r. 103 361

Vaivavo, Pima Rancheria. "Cocklebur Pond." (*Váiva*, cocklebur; *vo*, pond.) Twelve miles north of *Kohătk*, r.

II.—SONORA, MEXICO

DISTRICT OF ALTAR

Agua Prieta, Rancheria. (*See* Pozo Prieto.)

Akimuri, Rancheria. "The River." The present site of the Indian settlement of Sonoita, the Mexicans having occupied the lands where the Indians originally lived, and where the small Sonoita River sallies forth. It is about one mile down the river from the Mexican settlement and goes under the name of *El Pueblo*. Considerable wheat is cultivated by irrigating with water from the river, and the Indians, the number of whom varies according to season but generally may be seventy to eighty or more, are well-to-do. *See* Sonoita.

Akitaivuni, Summer Rancheria. "Where the river begins." (*Ak*^{i}, river, arroyo; *vun*, begin.) Situated six miles east of Sonoita, where there were several swamps before the river, some years ago, broke through the gravelly accumulations. Abandoned.

Alamito, Mexican ranch, formerly Papago rancheria. In Papago, *Váipia* ("Waterholes," "Springs"). Two miles north of the town of Trincheras. There is an old church here. Miguel, an old Indian of Quitovac, saw Indians living here seventy years ago.

Alamo Muerto, Mexican ranches, formerly Papago rancheria. In Papago, *Áupa* ("Cottonwood Tree." Plural is *aŭpa*). Eight leagues west of Caborca and four leagues north-east of Pozo Moreneño, it is situated on the Altar River, on the llano; the ranches are about north of the Sierra del Alamo, which is near by, and three leagues west of Bisani.

Altar. Town on the Altar River, formerly rancheria. In Papago, *Vávuk* ("Where there is a mountain." *Vav*, mountain, or rocky place). Three families live in the outskirts, making a living by working for Mexicans.

103 361 *Arivaipa*, Mexican ranch, formerly Papago rancheria. In Papago, *Ālivaipia* ("Small Springs" or "Small Waterholes." *Āli*, small, child; *vâipia* is plural of *vâxia*, well, waterhole, spring). Eight miles south-east of Garambullo ranch. The Papagoes used to have fields here. The old men died and the young men went to Arizona.

Arivaipa. Papago camp, abandoned; formerly of importance. It is about thirty-five miles east of Puerto de Libertad, fifteen miles [131] from the coast. This marks the southern limit of the Papago tribes' extension. A reliable old Indian, Miguel of Quitovac, knows this place, of which Mr. M. Taylor, formerly superintendent of the Yaqui mine, gave me the following description: "A large mezquite tree is growing on the south side of the arroyo. Here the Papagoes from Pozos de San Ignacio used to camp before being dispossessed by the *rurales*. East of this tree, on the bank of the arroyo, is another mezquite overhanging the arroyo; one of the limbs has been cut off. Directly under that cut one should dig for water which will be found eight to ten feet deep in the sand; [312] it stands in caliche, into which a two-foot deep hole has been made." According to the same informant, there is a Seri well, "Coyote," on the same arroyo, six miles from the coast. The main camp of the Seri Indians, perhaps now numbering two hundred in all, is said to be at no great distance from there.

Arivaipa. This name also appears on the upper Gila River, near the San Carlos Reservation. Formerly the Apaches used to be there.

Atil, Mexican Pueblo, formerly rancheria. In Papâgo, *Átshi* ("Narrow Mountain"). Six leagues from pueblo Oquitoa on the Altar River.

Bajio de Evaristo, Summer Rancheria. In Papago, *Htashpik* ("Buried"). According to tradition, a beautiful Papago woman was buried here. It is situated in the fertile, long, broad valley leading west to Sonoita. About fifteen families live here.

Banori, Rancheria. In Papago, *Vânolik* ("Curve"). Seven miles east of Mexican rancheria Bajio del Alcalde, which hauls water from there. It is not far from the other Banori, both of them located near the boundary.

Banori, Mexican ranch, formerly Papago rancheria. Two miles west of Cobota. It is probably the ranch which formerly was called Poso de Luis. Two Papago families keep animals there by permission of the Mexican owner, J. Celaya.

Bisani, Hacienda. Formerly rancheria. In Papago, *Vtisin* ("Small, deep arroyo"). Sixteen miles west south-west of Caborca. The extensive and fertile lands have been made into a Mexican hacienda for wheat raising. Fourteen or fifteen families live here who are dependent on the hacienda for work. Ruins of an old Jesuit church are existent.

Caborca. Town on the Altar River, formerly rancheria. In Papago, *Kávortk* ("Rounded Hill"). Seven families live in the outskirts, two of them possessing and cultivating *milpas* (garden fields), the rest being laborers for Mexicans.

Cacate, Rancheria. In Papago, *Káka* ("Clearing"). On the south-western side of Sierra de Santa Rosa (east of Sonoita). Abandoned fifteen years ago.

Carricito, Rancheria. In Papago, *Vapktjuutshk* ("Where the reeds stand." *Vapk*, reed; *tjüutshk*, upright, standing). Near Rancho de Macias, toward the boundary line. Nine families; the men seek work in the Campana gold mine.

Charco de Chavarria, Summer Rancheria. In Papago, *Kóvoit* ("Badger's Field." *Kav*, badger; *óitak*, field, milpa). Four leagues east of Sonoita. Papagoes used to live here formerly, and in the last four years a couple of families are again occupying the country.

Charco de la Mujer, Rancheria. In Papago, *Ófviavóoka* ("Woman's Pond." *Ófvi*, woman; *vo*, pond). Two leagues north north-east of La Nariz, *r*. People from La Nariz visit it for the sake of obtaining water for the cattle. Otherwise it appears abandoned.

Chujubabi, Rancheria. In Papago, *Tshuhuvaxia* ("Cave Well." *Tshúhu*, cave; *vóxia*, well, waterhole, also spring). Four leagues south-east of Quitovac. It is inhabited by three or four families.

Cóbota, Rancheria. In Papago, *Kóvortk* ("Hollow in the ground"). It is on the west side of the peak of Cóbota, about eight miles south-east of Cerro de la Lesna, and four miles south of the boundary. Ten families live here. When the water is consumed they go to Tecolote, *s*., Arizona, where they have fields.

Comobabi, Rancheria. For interpretation *see* Comobabi, Arizona. It is six leagues east south-east of Cobota. More than ten families live here.

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Coyote, Summer Rancheria. In Papago, *Panvaxia* ("Coyote Well." *Pan*, coyote; *váxia*, well, waterhole, also spring). A small rancheria, north of Tajitos mine (about twenty-five miles north of Caborca). Water is procured by digging holes in the river bed.

Cubabi, Rancheria. In Papago, *Kovaxia* ("Hidden Well." *Ko*, cover; *váxia*, well, waterhole, also spring). Near the Sierra de Cobota, four leagues north of Plomo, mining town. Eight to ten families.

Cubo, Mexican ranches, formerly Papago rancheria. In Papago, *Kuvo* ("Big Pond." *Ku*, big; *vo*, pond). Thirty miles north of Caborca.

Cúmaro, Rancheria. In Papago, probably, *Komvaxia* (*Kom*, tree with red berries, called by the Mexicans *cumaro; váxia*, well, waterhole, also spring). About eight leagues west of Sasabe custom-house and two leagues from the boundary. Four or five families live here.

El Durasno, Rancheria, abandoned some time ago. Situated north of the mountain of the same name (north of Carricito, *r.*), at the foot of it. Water was brought from some pools in the mountain. Sons of those who lived there are still alive.

El Picu, Rancheria. In Papago, *Óokobonjik*^{1} ("Tears." *Óok*, tears; *bónjik*^{1} is euphonistic, and does not mean anything by itself). Water comes up very sparingly, hence the name. It is about forty-five miles south south-west of Caborca and eight leagues west of Pozos de San Ignacio. Has been uninhabited for more than thirty years, though some Indians from Pozos de San Ignacio had a ranch here.

El Tren. Abandoned mining village, formerly Papago rancheria, called, in Papago, *Líima* ("Whetting Stone." In another version the name *Lin* is a corruption of Trinidad and means nothing). Near Zoñi. Placer mines were formerly worked here.

Kíkimikux, Summer Rancheria. "House Standing." (*Ki*, house; *kux*, standing, prominent.) It is less than one league east of Cúmaro, *r.*, There are ten families living here.

La Espuma, Rancheria. In Papago, *Tótshaki* ("Foam." Water makes foam in the hole when being excavated in the sand. Good water to drink). In the Sierra de la Espuma, south of La Nariz. It is inhabited only in the winter.

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La Nariz, Rancheria. In Papago, *Táak* ("Nose"). It is situated at the foot of the south-eastern promontory of the Sierra de la Nariz. Its profile resembles a nose, hence its name. In the winter usually fifteen families live here. At the time of my visit in November there were five families; some were absent in Represa de Enrique, others were working for the Americans (agriculture) in Arizona. There is a dam here made by Mexicans, American citizens, who are trying to drive the Indians away.

Lesna Vieja, Rancheria. In Papago, *Kuktjuitakkux* ("Palo Verde Standing." *Kuktjúitak*, palo verde; *kux*, standing, prominent). It is about three leagues north-east of Bajio de Evaristo, in the north-western part of the District of Altar, at the edge of the basin. Abandoned about twelve years ago. Ruins of huts and a broken dam can still be seen.

Llano de Juan Ramon, Summer Rancheria. In Papago, *Kókaulivo* (*Kókauli*, a bush called in Spanish *garambullo; vo*, pond. "Pond among garambullo Bushes"). It is one league south-east of Garambullo ranch. Has been abandoned probably fifty years.

Ónak, Rancheria. Pronounced *Sónak* in Bisani ("Where there is salt." *On*, salt). Twelve leagues south-west of Caborca; three leagues west of Pozo Prieto (abandoned *r.*). Abandoned in the present generation. Mexicans had here formerly gold and silver mining by *arrastras*.

Oquitoa, Mexican Pueblo, formerly rancheria. In Papago, *Hókito* ("Boundary Limit"). Two leagues north-east of Altar, on the Altar River.

Pitiquito, Town on the Altar River, formerly a rancheria. In Papago, *Ptitskin*, "Gone to Nothing." The name alludes to the annihilation of both parties to a combat which is said to have taken place on a mountain near the present town. On account of the permanency of water in this part of the river and the fertility of the plain, this locality is to-day of agricultural importance. There are four Papago families here, who work for the Mexicans.

Pozo Grande, Rancheria. In Papago, *Kuvaxia* ("Big Well." *Ku*, big, large; *váxia*, well, waterhole, spring). It is near the south-western point of Cerro del Viejo, ten leagues south of Caborca. Has been uninhabited for fifty to sixty years.

103 *Pozo Moreneño*, Rancheria, abandoned. Near the southern part of Sierra del Alamo. Twelve leagues south-west of Caborca, three leagues from Pozo Prieto (abandoned *r.*).

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Pozo Prieto or *Agua Prieta*, Rancheria. In Papago, *'Tjukshootak* ("Black Water." *'Tjuk*, black; *shóotak*, water). Near the foothills of Sierra del Viejo, two leagues from Pozo Grande. Papagoes from Bisani visit it every year, but it is more or less abandoned.

Pozo Verde, Rancheria. In Papago, *Tjuitakvaxia* ("Green Well." *Tjúitak*, green (also *stjúitak*); *váxia*, well, waterhole, spring). The name is derived from a fine spring at the foot of the Baboquivari Range, about a mile south of the boundary line, and a few miles west of Sasabe custom-house. The largest rancheria in Sonora. Twenty-five to thirty families are said to live here. There is a general here in charge of all the Papagoes of Sonora. The place is of importance in the mythology of the tribe.

Pozos de San Ignacio, Rancheria. In Papago, *Tootavaipia* ("White Waterholes." *Tóa* or *'Tóa*, white; *váipia*, plural of *váxia*, waterhole, spring). The earth is white here, probably on account of the presence of caliche. It is about twenty leagues south of Caborca. This rancheria was given up in 1907 after a brave fight with the *rurales* (Mexican police), of whom eighteen were killed, nearly all the Indians escaping with their belongings into Arizona. Many families were living here, sixteen persons being full-grown men.

Quelële Quemado, Rancheria. In Papago, *Kusitmohitatsh* ("Burnt Carrion Hawk." *Kúsit*, carrion hawk, with a yellowish throat). One to two leagues north of Lesna Vieja, *r.* Abandoned long ago.

Quitovac, Rancheria. In Papago, *Vapk* or *Váketa*, "Reeds" (*Vapk* is the name for reeds; they here grow in a swamp, produced by flow from the springs). An important place in the life of the tribe. Several fine springs at one locality furnish abundant water. There was once mining activity here. At present only the Indians occasionally "dry wash" the placer mines. Two or three Mexican families live here and there is a store. The Indians are fairly well-to-do, and in the winter as many as fifteen families may be found at Quitovac.

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Represa de Enrique, Summer Rancheria. In Papago, *Njûoport* ("Nighthawk"). It is situated in the fertile, long, broad valley leading west to Sonoita. Seven families have cattle here and own a large pond. They come from La Espuma, *r*. 103 361

San Pedro, Rancheria. In Papago, *Somûok* ("Peak"). One league south-west of Coyote, *r*. Four families live here.

Santo Domingo, Hacienda, formerly Papago rancheria. In Papago, *Tjûtshpa*, "Pounding Stone." (*Tjûtshpa*, a rude stone vessel in which mezquite beans, mescal, etc., are pounded with a stone pestle; sometimes a hollow is made in the rock for the same purpose.) Seven miles west of Sonoita on the Sonoita River. A large tract of land was cultivated here by Mexicans, through irrigation from Sonoita River, but it has been abandoned for several years. No Indians live here any more. [412]

Saric, Mexican Pueblo, formerly rancheria. In Papago, *Shâarik* ("Pass." Spanish, *puerta*). Five leagues from Pueblo Tubutama on the Altar River, near the boundary of the District of Magdalena. Some Papagoes live here.

Sasabe, Mexican custom-house, formerly a rancheria. In Papago, *Shâshovuk* ("Echo").

Sonoita, Rancheria. In Papago, *Kavortkson* ("At the foot of the rounded hill." *Kâvortk*, rounded hill; *son*, in Sonoita pronounced *shon*, at the foot of, base). Sometimes the place is designated in an abbreviated manner as *shon* only, from which possibly the Spanish name Sonoita is derived. The oasis was originally called Sonoitag or Sonoidac. In the reprint of Ortega's "Apostolicas Afanes," Mexico, 1887, the name Sonoidag is attributed to the Indians. Speaking of Father Kino's journey in 1699, the narrator says: "They gave the name San Marcelo to a place which the natives call Sonoidag, a very favorable locality on account of its lands, pasture, and abundant water" (libro 2, cap. 7, p. 340). The rancheria used to be near the beginning of the river, but the Indians have gradually been driven by the Mexicans lower down, occupying now a site one mile from the Mexican village of Sonoita. (*See* Akimuri.)

Suvâk, Summer Rancheria. "Red." (*See under* "Camps of the Sand Papagoes or Areneños.")

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Tubutama, Mexican Pueblo, formerly rancheria. In Papago, *Tjúvutam* ("High Up"). Three leagues from Mexican pueblo Atil on the Altar River.

Zoñi, Mexican ranch, formerly Papago rancheria. In Papago, *Shónekam* ("Spring that never dries up"). Six miles from Rancho de Macias in north-western part of the District of Altar. The Campana mine pumps water from here. Formerly there was placer mining here.

CAMPS OF THE SAND PAPAGOES OR ARENEÑOS

These Papagoes formerly occupied the sandy country along the upper part of the Gulf of California, reaching from the lower Colorado River eastward as far as Santo Domingo, near Sonoita, and northward to Gila Range and Cabeza Prieta Range. Their head-quarters was the Pinacate region.

Agua Dulce, Camp. In Papago, *Ikuskaatsh* (*Íkus*, piece of clothing; Spanish, *trapo*). West south-west of Quitovaquita, at a place where the river water appears again. A ranch was established here by a Mexican, but was later abandoned. Both here and at Agua Salada, three miles lower down, the Papagoes used to come in great numbers to hunt or to gather sahuaro, but no agriculture was ever undertaken.

Agua Salada or *La Salada*, Camp. In Papago, *Onokshóotak* ("Salt Water." *Óno*, salt; *shóotak*, water). Name of a certain part of the Sonoita River bed, south south-west of Quitovaquita. One and one-half miles further down is Los Pozitos, the name being derived from small wells that travellers make in the sand of the river-bed, to get water. Drinkable water may be procured in the same way at Agua Salada.

Hótunikat, Camp. "Sunset," "West." South of Pinacate, four miles west of Tinaja de los Chivos. This was the head-quarters of the sand people and, to employ a Mexican usage, may be termed a rancheria. Drinking water was brought from Los Chivos. An annual festival—dancing and singing—was given to procure rain and "make the grass grow." *See page* 228.

La Choya, Camp. In Papago, *Hanammétjurtivaxia* (*Hánam*, choya, 103
a very spiny cactus of the *opuntia* genus which grows in abundance
here; *métjurti* ~~was~~ interpreted to me as indicating "in," "near"; 361 ●
váxia, well, waterhole, spring). South of Pinacate. This camp is
a few yards from the beach, and fresh water is found in a hole that
has been dug ten feet deep.

Laguna Prieta, Camp. In Papago, *Vapk* ("Reeds"). A salt lagoon 317
west of Gila Range (Sierra de las Tinajas Altas). Abundance of 103
fresh water found among the bulrushes on the marshy shore. 361

La Soda, Camp. In Papago, *Tjütjaka*. South of Pinacate. This is a deposit of soda, ten miles east of Salina del Pinacate, and three miles from the sea. Fresh water is found by digging on the shore, as well as three miles west at a locality called Tule.

Poso del Caballo, Camp. In Papago, *Hiativáxia* ("Well of the Sand Dunes." *Hía*, *Híati*, or *Híatit*, sand dunes, sand; *váxia*, well, a hole dug to reach water, also spring). This locality is about halfway between Salina del Pinacate and Salina Grande. It is a difficult place to find, near some high sand dunes west of Estero del Tule.

Salina del Pinacate, Camp. In Papago, *Óno* or *On* ("Salt"). Also called *Kavonoka* ("Badger's Salt." *Kav*, badger). A small deposit of salt in a slough three miles from the coast, south-west of the Pinacate region. This is the principal place from which the Papagoes gather salt. Fresh water is found by digging on the shore.

Salina Grande, Camp. In Papago, *Murtegshóotak* ("Running Water." *Mürteg*, running; *shóotak*, water). A large salt deposit forty miles east of the mouth of Colorado River, three miles from the coast. On the flat, north-western shore are sixteen fresh-water springs.

Sierra Blanca, Camps. In Papago, *Tóakomal̄ik* ("White Mountain." 103
Tóa or *'Tóa*, white; *kómal̄ik*, mountain crest). A sierra south of 361
Pinacate. A small water tank lasting three months is found near
the north-east point on the east side, but the Indians had several
camps, especially on the south side of the range.

Sierra del Rosario, Camps. In Papago, *Hiatikomal̄ik* ("Mountain Crest in the Sand." *Híati* (also *Hía* or *Híatit*), sand; *kómal̄ik*, mountain crest). A mountain range among the sand dunes

103 south of Gila Range (Sierra de las Tinajas Altas). Though far from water, there are many evidences of camping places here.

● 361 *Suvâk*, Summer Rancheria. "Red." A hill near by has the same name. In the Pinacate region, five miles south-east of Tinajas de Emilia. There was some agriculture here, among the lava ridges. People came from Batamote to cultivate brown beans, white beans (*tépari*), maize, and squashes on a small scale. It is doubtful whether these can be considered sand people, probably not. Nearer the coast no attempt at agriculture was ever made. There is a tinaja near by called *tjûumikux* ("Where the pitahaya stands." *Tjûmi*, a kind of pitahaya cactus; *kux*, standing, prominent).

Tinajas Altas, Camp. In Papago, *Óovak* ("Where arrows were shot."
103 *Óo*, arrow). The name originates from a legend about two Indians
361 who shot arrows from either side of the ridge. One did shoot
973 across. Where the arrows of the other fell short the pools appeared. These well-known tinajas, eight in number, are in the southern part of the Gila Range (Sierra de las Tinajas Altas) that stretches from the neighborhood of Yuma south-east. It is on the old track from Caborca, over Sonoita, to Yuma.

Tinaja de los Chivos, Camp. In Papago, *Hötunikat* ("Sunset,"
103 "West"). The Spanish name is the vulgar expression *chivos*
361 (goats) for mountain-sheep. In the south-western part of Pinacate. An important camp. There is a track leading from here to the former main camp of the sand people, called by the same name, *Hötunikat*. Another track leads over the mountains to Tinajas de Emilia.

Tinaja de los Papagos, Camp. In Papago, *Hitjuupo* ("Urine Pool." *Hi*, urine; *tjûupo*, natural tank, water in rock cavity; Spanish, *tinaja*). The name alludes to imaginary spoliation by the departed. In the north-western part of Pinacate. In years of ordinary rainfall the three tinajas here furnish water all the year round. An important camp.

Tinaja del Cuervo, Camp. In Papago, *Havanikosh* ("Raven's Nest." *Hövani*, Raven (*corvus cryptoleucus*); *kosh*, nest). In the south-western part of Pinacate. This is a regular camp of the salt expeditions. Water can nearly always be depended upon here.

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Tinajas de Emilia. In Papago, *Moitjûtjupo* ("Many Pools." *Moi,* many; *tjûupo,* water in natural cavity of the rock, natural tank; in Spanish, *tinaja*). An important camp on the slope of Pinacate, south-east of Los Picos del Pinacate, in a straight line hardly two miles from the top. There are four large, natural tanks here, one of them fairly easy of access. In years of ordinary rainfall the water lasts here all the year round. 103 361

Tinajas de la Cabeza Prieta, Camp. In Papago, *•Tjukomôkamtjûupo* ("Black Head Pools." *•Tjuk,* black; *mo,* head; *tjûupo,* water in natural cavity of the rock, natural tank; in Spanish, *tinaja*). The Cabeza Prieta Range is east of Gila Range (Sierra de las Tinajas Altas). In the middle part, on the east side, is found a number of *tinajas,* one above the other, in a narrow gorge at the foot of the tallest top, from which the range derives its name. This must have been an important camp of the sand people, and certain old, crude stone heaps are found at the entrance to the gorge. (*See page* 324.)

Tinaja del Tule, Camp. In Papago, *Otoxakam* ("Where there is Bulrush." *Ótoxak,* bulrush (*typha latifolia*); in Spanish, *tule*). A well-known pool on the old trail from Caborca, over Sonoita, to Yuma, one day's journey east of Tinajas Altas.

Tornillal, Camp. The name in Papago is slightly doubtful, but is probably *Totshakshôotaki* ("Foam on the Water." *Tôtshak,* foam; *shôotak,* water). Twenty-five miles from the mouth of Colorado River, fourteen miles west of Salina Grande, on the coast, one-quarter of a mile from the beach. Screwbean trees (in Spanish, *tornillo*) grow here, hence the name given to the locality by my guide. Water has to be dug for, and is brackish and bitter.

GENERIC DESCENT OF THE PAPAGO VILLAGES

By J. W. HOOVER

131 THE region of southern Arizona and northern Sonora, Mexico, occupied by the Papago Indians, was called Papagueria by the Spaniards. The name is again coming into use as the area is made to stand out in sharper contrast with the lines of settlement and civilization drawing more closely about it. Broadly considered, it is the area south of the Southern Pacific Railway and west of the Santa Cruz River, and north of the Altar Valley, Sonora. Disregarding several considerable outlying villages or groups such as those at San Xavier and in Tucson, the Papago villages are confined to that part of the area which is bounded on the east by the Baboquivari Mountain range and related low mountain groups extending northward. These also roughly bound the Papago Indian Reservation. On the north, white settlement is approaching the reservation boundary line. The western boundary is less definite, as in this direction the desert becomes increasingly inhospitable, merging into great precarious empty waste spaces, too barren to support even Papago.[1]

133 As part of the Basin Range Province, the Papagueria is characterized by flat detrital plains, interrupted by low fault block mountains which occupy the minor part of the area. The mountains are in an advanced stage of erosion, rugged and almost bare of soil and vegetation, due to aridity and spasmodic rainfall. The products of disintegration have been emptied onto the relatively depressed areas and spread out smoothly.

101 131 361 Both mountains and plains, or so-called valleys, have north-northwest by south-southeast axes, and the Papagueria lies open both to the north and to the south. So, northward the Papago villages blend into the Pima villages of the Gila River, interrupted by the wedge of white settlement extending from Florence on the Gila River westward through Casa Grande. And southward, they blend into the river villages of the Altar Valley, Sonora, now mostly Mexican. The Indians of the latter valley are really Pima as the Spanish padres made the distinction. The settled groups on the river flats wherever found were called Pima, and the somewhat migratory desert Indians were called Papago.

175 The eastern border land, the Santa Cruz Valley, was formerly occupied by the Sobaipuris, who like the Pima on the Gila and Altar Rivers, irrigated their fields on the flats of the Santa Cruz and San Pedro Rivers.

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[1] Godfrey Sykes, The Camino del Diablo: with Notes on a Journey in 1925 (Geographical Review, Vol. 17, pp. 62–74, 1927); Eldred D. Wilson, New Mountains in the Yuma Desert (Geographical Review, Vol. 21, pp. 22–228, 1931).

11: Hoover U-4, 5 (ca. 1930) 1935

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After a crop failure they prepare for a new crop with as much care as if a harvest were assured.[3] 241

In the Papago country, dependable sources of water and land which could be tilled were seldom found close together. The Papago adjusted themselves by a compromise between settled village life and nomadism through inter-village migration, commonly between two villages. Those of one type were reserve villages located at the foot of the mountains or in the foothills where there were sources of water that could be relied on. The other villages were out on the open plains adjacent to the fields and were farming communities temporarily occupied. In recent years, with the digging of deep wells near the latter villages, their relative importance has been reversed and the inter-village migrations have lost their seasonal character. 221 361

THE OLD HEAD OR PARENT VILLAGES

The present day Papago villages may be traced back to about twelve common centers prior to 1860. Each of these represents a tribe which, spreading from the main village or pair of villages, has established new communities. Some of these parent villages no doubt sprang from a few of the very oldest villages as Kaka, Achi (Santa Rosa), Anegam, Tecolote, and Gue Va (Quitovac).[4] The tribal areas coincide fairly well with the larger units of plains or drainage basins, imperfectly set apart by mountain ranges or groups. The parent villages with their descendant villages are as follows: 361 621

1. *Tecolote*, on the Tecolote plain, south of the Quijotoa Mountains had as its companion or reserve village, Cobabi, Sonora. A second reserve village developed at Cabota, also south of the boundary. Tecolote was a rallying point against the Apache, but now its people are scattered in a number of small communities or rancherias on the surrounding plain, such as San Rafael or Papala-vakamukik, and San Ignacio, with Molonites on the western front. The old village site is now virtually abandoned. Tecolote Indians settled Vamori, Poso Verde, San Miguel, and Indian Oasis. They also make up in part the villages of Chulik, Topowa, and Kavolik. A part of the Vamori people came from near Caborca in Sonora.

2. *Kupk* (Copeka), with its descendant villages and people, occupies the Quijotoa plain. Its companion reserve village, San Antone and Kupk itself, have shrunk to insignificance. Kupk was parent to Kavolik, Pisinemo, and Haal Muik, with their reserve village, Poso Blanco; and in recent

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[3] W. J. Spillman, Extra-dry Farming (Farm Journal, March, 1928, p. 22).

[4] See also Carl Lumholtz, New Trails in Mexico (New York, 1912), pp. 355–56.

361 621 years to the smaller villages, Comevo and Cheweeton. Southward the plain extends into Sonora and includes San Francisco (Chuo Gülah), with Hiaspak and Vapk.

3. *Gue-va* (corrupted to Kerwo or Cubo), with its descendant villages occupied the series of valleys with their north-south axes flanking the Quijotoa plain on its west side. Northward the descendant villages extend into the Poso Redonde Valley, westward over the Barajita Valley, and southward across the La Aquituni Valley or plain, with the most important villages bearing the same names. Still farther south, the plain east of Nariz Mountains includes Comoti, Arizona, and Sinunyui Poduk, Sonora, with Tatschak as its reserve village.

4. *Perigua* is the old village of the Perigua Valley. Its descendant villages are Road Runner, Emita, Toapit, with Poso Colorado, and Poso Redondo, in part, as reserve villages. These people are believed to have come originally from Kaka.

5. *Kaka*, with its emergency village, Moivaxia, south of the Sand Tank Mountains, is parent to the large village, Akchin, near Maricopa, and to Sil Mukik, near Gila Bend.

6. *Kuitak*, or Iron Pipe Village, in the lower or southern Santa Rosa Valley, was preceded by Vachk, the "Batqui" of Father Kino,[5] and is now almost extinct. It was the emergency village for Big Fields, to which it is now the most important center. It was also parent to the villages of the Cobabi Mountains and of the South Comobabi Mountains, viz., Cobabi, which is the oldest reserve village, San Luiz, Nolic, Santa Cruz, and Rincon; also to the villages at the north ends of the Baboquivera and Coyote Mountains, viz., Vafkuk (Babakuk), Coyote, Alamo, and San Piedro. Tusconcito and part of the population of Indian Oasis are also of this group. The major part of the Papago village in Tucson is from Big Fields.

7. *Santa Rosa*, whose predecessor was the older village Achi, is still an important center in the Santa Rosa Valley, but at times dwindles to several families. Its most important emergency village is Covered Wells. It is parent to the small communities to the south and east, and to the present large village, Bac, at the San Xavier mission.

8. *Akchin*, just south of Santa Rosa, had Comobabi as its reserve village. Later the other small villages of the North Comobabi Mountains sprung from it, and also Skoskonik.

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[5] "Nuestro Senora de la Mersed del Batqui" (Kino's Historical Memoirs of Pimeria Alta, 1683–1711: edited and annoted by Herbert Eugene Bolton, 2 vols., Cleveland, 1919, Vol. 1, p. 206).

11: Hoover U-4, 5 (ca. 1930) 1935
NU28 Papago NU28

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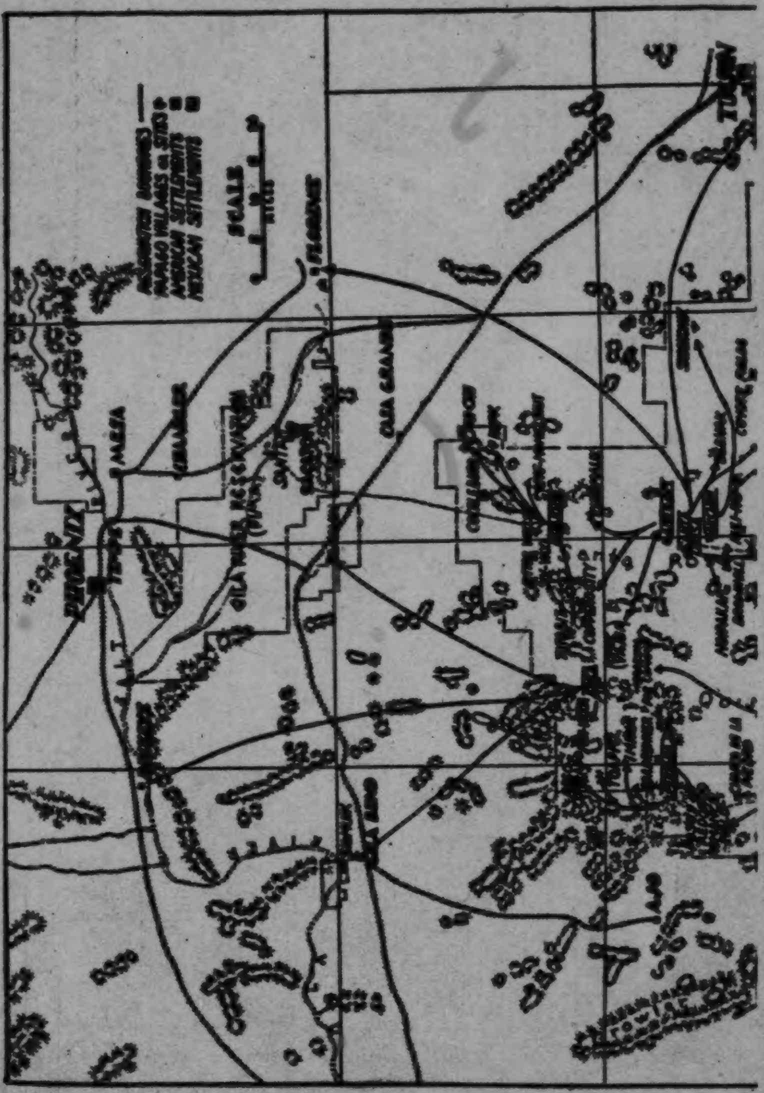
PHOENIX
TEMPE
MESA
SALT RIVER
CHANDLER
GILA RIVER RESERVATION (PIMA)
SANTAN
SACATON
CASA GRANDE
FLORENCE
GILA BEND
AJO
TUCSON
RESERVATION BOUNDARIES
PAPAGO VILLAGES or SITES
AMERICAN SETTLEMENTS
MEXICAN SETTLEMENTS
SCALE
MILES

[Facing p. 260(A)]

11: Hoover U-4, 5 (ca. 1930) 1935
NU28 Papago NU28

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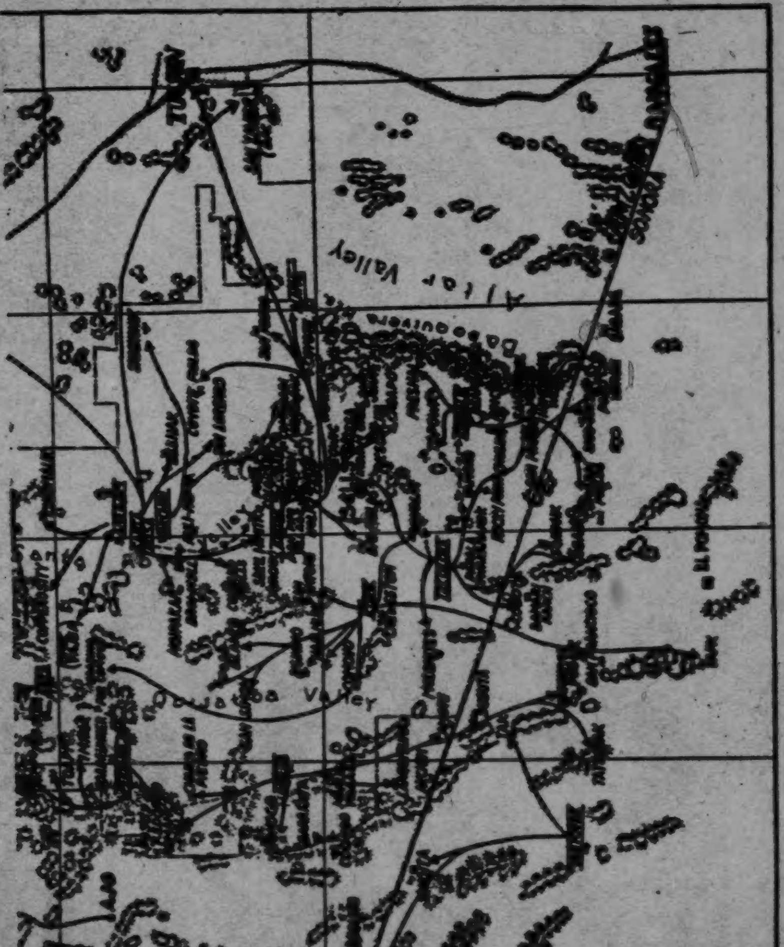
TUCSON
AJO
Altar Valley
Quijotoa Valley
ARIZONA
SONORA
SAND
PAP

FIG. 1. Location and interrelation of Papago villages of southern Arizona and northern Sonora.

[Facing p. 260 (B)]

11: Hoover U-4, 5 (ca. 1930) 1935

NU28 Papago NU28

Sand Papago

361 621 9. *Anegam*, of the upper Santa Rosa and tributary valleys, is the new site of the village Omik-vaxia (Salt Well). The latter was located on "the strip" withheld from the reservation in 1917. The Indians were at that time forced to move their village. With the inclusion of "the strip" into the reservation, some return movement may be expected. Copperosity (Chuopo) was the reserve village. Kukomalik was also settled by these people. Anegam is now one of the largest of all the villages.

10. *Quajote*, on the plain between the Slate and Vekol Mountains, with its reserve village, Bitter Wells, is parent to the villages northward, toward Casa Grande. Some of these people settled at Santan on the Gila River and on the Salt River, and are living among the Pima.

11. *Komalik* is the old Baboquivera Valley village. Its ancient reserve village was Comobabi, Sonora, but nearer reserve villages developed along the Baboquivera Range, the most important of which was Fresnal. They no longer trek to Comobabi, and this village together with Cobabi and the neighboring communities of the piedmont and valleys on the east side of the Sierra de Cobota, Sonora, although of independent origin, have, by virtue of geographical unity, propinquity, and the international boundary, become a distinct unit in Sonora.

221 361 621 [32] 184 12. The *Sand Papagos* have been the most nomadic of the Papago tribes. They occupy the truly arid region west of the Ajo Mountains. Rainfall diminishes toward the Gulf of California, where it averages as little as two and one-half inches a year.[6] The reservation does not extend beyond the Ajo Mountains, and there is no need for it, as the region is and must remain virtually uninhabited by whites except for the former copper mining camp at Ajo. The existence of these people depended upon their knowledge of the places in mountains where there are natural water tanks, such as Tinas Altas,[7] the Tule Tanks, and the Papago Tanks. The latter is a small oasis with an abundance of shade, grass, and a little ribbon of flat fertile valley.[8] For food the Sand Papagos ran down jack rabbits in the loose sand, killed mountain sheep, mule deer, and antelope with bows and arrows, and caught muskrats. They ate lizards, and at certain seasons went to the coast to fish and to obtain salt. Only a single agricultural site has been attributed to these people, southeast of Tinajas de Emilia in Pini-

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[6] Godfrey Sykes, Rainfall Investigations in Arizona and Sonora by means of Long Period Rain Gauges (Geographical Review, April, 1931, pp. 229–33).

[7] Kirk Bryan, The Papago Country, Arizona: Geologic, and Hydrologic Reconnaissance with a Guide to Desert Watering Places (U. S. Geological Survey, Water Supply Paper 499, Washington, pp. 132–34).

[8] W. T. Hornaday, Camp Fires on Desert and Lava (New York, 1909), pp. 181–82, 235.

Sand Papago

221 cate. Their vegetable food was largely the camote, an edible root found in
361 the sand dunes, together with the beans of the mesquite and the fruit of the
621 saguaro and pitahaya cacti, for which they came as far as Quitoboquito and
184 the lower Sonoita River.[9] A few of them even now have temporary camps, as of old, south to the Gulf.[10]

Quitovac, the old head village for the Sonoita Valley, is Sand Papago in kinship. Descendant therefrom was the Papago village at Sonoita and the now extinct village of Tak and the nearly extinct village, Quitoboquito. Sonoita was an attractive and favored site, as the Sonoita River is here a permanent stream. The present village is composed mostly of Mexicans, numbering about 600, who crowded out the Papago. At present there are five Papago families with about sixty people at the lower end of the village.[11] Quitoboquito is a small oasis with one of the largest springs in the Papago country.[12] It never was but a small village,[13] and the population is now reduced to one half-breed family operating a cattle ranch. The spring is on the American side of the boundary line, but the fields and ranch are in Sonora.

Several small villages of Sand Papago are located around Ajo. They are a nomadic and very poor people, having small houses and a field here and
[161] there. The largest remnant of the Sand Papago is located at Dome and Blaisdell, about twenty miles east of Yuma. The population of the two villages totals about two hundred. They have fields along the Gila River and
[404] work as laborers on the Southern Pacific Railway.

FACTORS INFLUENCING SHIFTS OF PAPAGO VILLAGE SITES OR OF THEIR POPULATIONS

178 Several factors have contributed toward a disintegration of the older
648 and larger villages. To begin with, a degree of concentration was a necessity for security, especially against Apache raids. As the Apache extended the range of their raiding activities over the Santa Cruz and Altar Valleys, the Papago abandoned all out-lying villages.

At this time the old village of Poso Verde, Sonora, was deserted and its
[361] people went to Comobabi, Sonora. The place became frequented by Apache bands. In 1874 the only evidences of habitation were the remains of a few bacquals and of an old adobe fort built by the Papago as a protection for
[312] their frontier village and grazing range. The "well" was described as a sort of pit or natural tank with a strong flavor of alkali, cow-manure, dead coyotes, and decayed vegetables.[14]

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[9] Lumholtz, pp. 330-31.

[10] A list of the former camps of the Sand Papagos is given by Lumholtz, pp. 394-97.

[11] A Papago family may include married offspring living under the same roof.

[12] Kirk Bryan, pp. 164-65.

[13] Hornaday, p. 122.

coyotes, and decayed vegetables.[14] Settled again from Tecolote, Poso Verde, 178
situated in a semicircle of foot hills, is now one of the most pleasing of all 648
the Papago villages.

The "trincheras" or walled fortifications on the isolated mesa four miles 712
east of San Miguel were built by the Papago as a retreat in case of Apache raids. They are in this respect distinct from the prehistoric trincheras on the mount just south of Sells, near Poso Verde, and through the Altar Valley, described by Sauer and Brand.[15]

The most important factor in making new and smaller settlements de- 231
sirable has been the introduction of cattle, dating from the journeys of 177
Father Estubio Kino, 1691–1702, followed by those of Father Garcés, 361
1768–1775. Along with Christianity, Father Kino introduced cattle, horses, and chickens. Cattle did not become important with the Papago, however, until the latter part of the nineteenth century, and the extensive areas between their limited fields were of little use to them except as game preserves. By hunting and gathering in these areas, they supplemented the produce of their fields, but no inducement was offered to permanent settlement of these areas. In 1849–1850 John Audobon described the Papago as 222
fast passing away, judging from the dilapidation of the towns and the num- 262
ber of empty houses.

> The people live on turtles and what game they can get. I have seen small elk and antelope skins dressed and terrapin shells are everywhere. We have bought two terrapins fresh killed, some roots, and the fruit of a plant called the manguey.
>
> Why it is that these Indians settle in such a country, I cannot conceive, for even the lizards, in most places innumerable, are scarce here. The Indians kill them with a
> light wand, giving them a dextrous tap on the head. They pick up the game, slip [482]
> the head under a belt or string round their waists, and when sufficient are collected, a little fire is made, and this delicate repast is enjoyed by them as an epicure would relish his brace of woodcock.[16]

Audobon also described a sort of mush made of grasshoppers. The in- 252
sects were caught and dried, then pounded and mixed with meal or pinole, parched wheat or corn, spiced and pounded.

Pastoralism is better suited to a scattered population, so the tendency 251
has been for the larger villages to break up into more scattered settle- 361
ments. The passing of the old Tecolote village in favor of smaller communi- 178

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[14] J. Ross Browne, Adventures in the Apache Country (New York, 1874), p. 277.

[15] Carl Sauer and Donald Brand, Prehistoric Settlements of Sonora, with Special Reference to Cerros de Trincheras (University of California Publications in Geography, Vol. 5, No. 3, 1931), espc. pp. 67–70.

[16] Audobon's Western Journal, 1849–50 (Cleveland, 1906), pp. 149–50.

11: Hoover U-4, 5 (ca. 1930) 1935
NU28 Papago NU28

231 ties and ranches is a good illustration. Grazing has enabled the non-tillable
364 lands to be put to use, and many of the Indians prefer to live on or near
178 their grazing lands.

Other factors responsible for the passing of the old order have been the digging of wells by the government which have scattered more widely the
[312] sources of dependable water, the development of mining communities, and increasing contact with the white population.[17]

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[17] There has been considerable variation in the names and spelling of names of Papago villages as given by various writers. Some revision is suggested of the names used on the government maps published in connection with Water Supply Paper 499. The Indian names are given preference in the present study, except where corruptions of them, of Spanish and American names, have become a matter of common usage. The U. S. Geographic Board has as yet taken no action concerning these names.

Special acknowledgment is due Father Bonaventura Oblasser, Superior of Franciscan Missions among Desert Papagos, for the invaluable assistance of his experience among the Papago.

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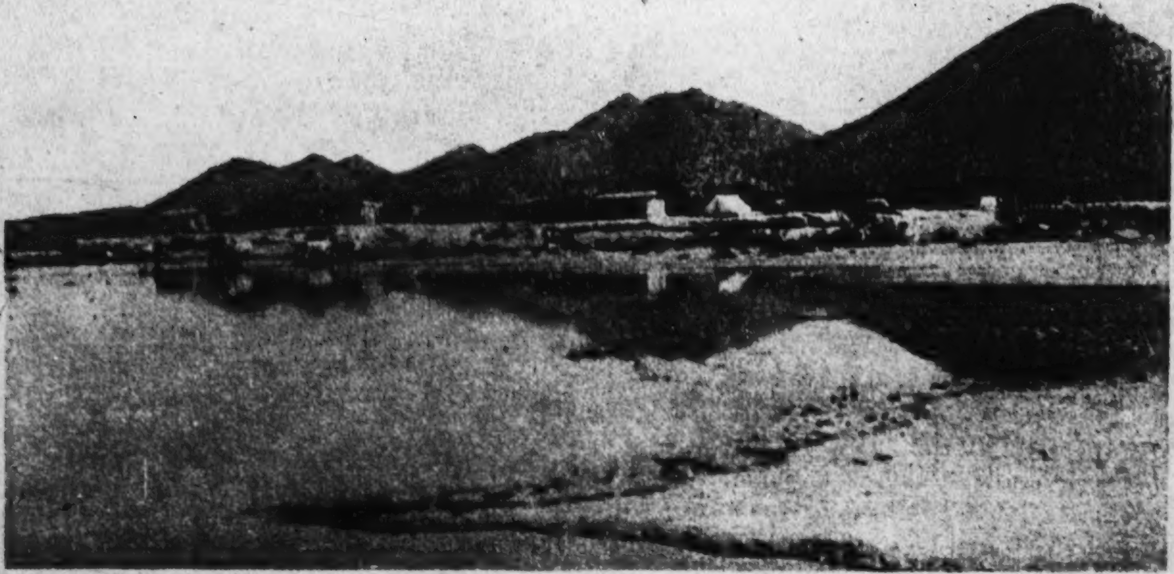
PL. I



THE PERMANENT POND AT QUITOVAQUITA, WITH THE HOME OF MANUEL ORTEGA ON THE BANK AND THE LEGENDARY MOUNTAIN AT THE RIGHT

[Facing p. 159]

13:Davis E-5 (1920) 1920 NU28 Papago NU28

796 788 grimage and ceremony may entail floods,
drought, sickness, even death. To avoid
these the people travel many miles, with
teams or on horseback, under a blazing sun
or in rainstorms, to participate in the ceremony.
133 The place where the monster lived
covers an area of two or three hundred acres
of whitish earth or calcareous material,
which the Indians claim to be the remains of
the flesh of the monster. Below the surface
137 342 361 are massses of immense bones. Quitovaquita
is surrounded by tropical desert vegetation
of palo verde, mesquite, palo fierro,
giant or saguaro cactus, pitahaya or organ
cactus, and other desert growth. It consists
of twenty or thirty one-story houses,
built of adobe or of stone imbedded in mud.

312 796 In the center of the village is a *charco*, or
large pool, which is fed by a number of
springs and furnishes water for the village,
and drinking and wading places for burros,
horses, and cattle. When the pool is filled,
the water is used to irrigate the gardens of
the villages. During the period of the fiesta
the village is thronged with visiting Indians,
and those who cannot find accommoda-

Russell (22)

222 refers to the Papagos as trading acorns *(Quercus oblongi-*
[439] *folia)* to the Pima.

The important fruit crop comes from species of cactus, and of these the giant cactus or sahuaro *(Carnegia gigantea)* is most outstanding, its ripening preluding the rainy season, the drinking ceremony, and the new year. The Papagos depend upon this fruit to a much greater extent than do any other Indian people of the Southwest, and some six hundred families gather about 100,000 pounds each year (25).

222 Every family has an accustomed camp on some slope
361 where sahuaro grows, and here they have a rough shelter, with a water jar, perhaps a metate, and a cooking pot. Cactus camp is always an occasion of jollity. It means almost the first fresh food of the year, for much of the pulp is eaten fresh; the first taste of anything sweet; and, principally, the preparation for the great drinking ceremony which is regarded as responsible for bringing the rains.

222 The picking season lasts about two weeks. The women of the camp, sometimes assisted by the men, make two trips a day into an area perhaps half a mile square, which is their acknowledged territory, visiting every cactus plant in this area once in three or four days to gather the fruit as it ripens. Each carries a bowl-shaped, water-tight bas-
[415] ket (more recently a lard pail is used) to receive the pulp. One large basket, used as a general receptacle, is propped in an ocotillo bush *(Fouquieria splendens)* at some central point.

222 The fruit of the sahuaro grows at the extreme top of
417 the shaft, which is sometimes twenty-five feet high, or at the tips of the branches, and is hooked down with a long pole made of two giant cactus ribs spliced together. For-
[283] merly the splicing was agave fiber; now it is wire. At the top of this pole, and again at a lower point, perhaps five feet down, are affixed short transverse sticks of creosote bush *(Covillea glutinosa)* or of catclaw *(Acacia greggii)* for the purpose of aiding in dislodging the fruit.

. . . . . .

The principal aboriginal crops were corn, beans, 175
and squash, to which the Spanish missionaries added wheat, 105
kidney beans, lentils; vetch, chick peas, and possibly 241
watermelons. These new crops, however, were not grown [177]
in significant quantities until the last few generations.
Wheat could be planted in February and harvested in May, [221]
and corn was regularly planted in July or August when the
summer rains came; thus two grain crops a year became possible, greatly increasing the agricultural potential of the
area, although it was still limited by the extreme variation
and scarcity of rainfall.

The typical family was made up of the parents, 175
their children, and the wives and children of the sons. 105
Such units were grouped into villages with a tendency for 596
village members to be related through the paternal line. [621]
Like other southern and western Arizona groups, the family
was the important economic unit, with each family responsible for its own subsistence.

Religious practices were centered around the 175
recurring events of the annual economic cycle interspersed 105
by many curing and other personal crisis ceremonies. The 796
regular annual round of ceremonies included as its most [771]
important events a rain ceremony in early summer, after the [221]
gathering of the fruit of the giant cactus, at which the [361]
fermented juice of the fruit was drunk, and a deer dance in
the autumn or early winter when the people had moved into
their mountain localities from the summer field villages.

18: Kelly E-4, 5 (no date) 1963 NU28 Papago NU28

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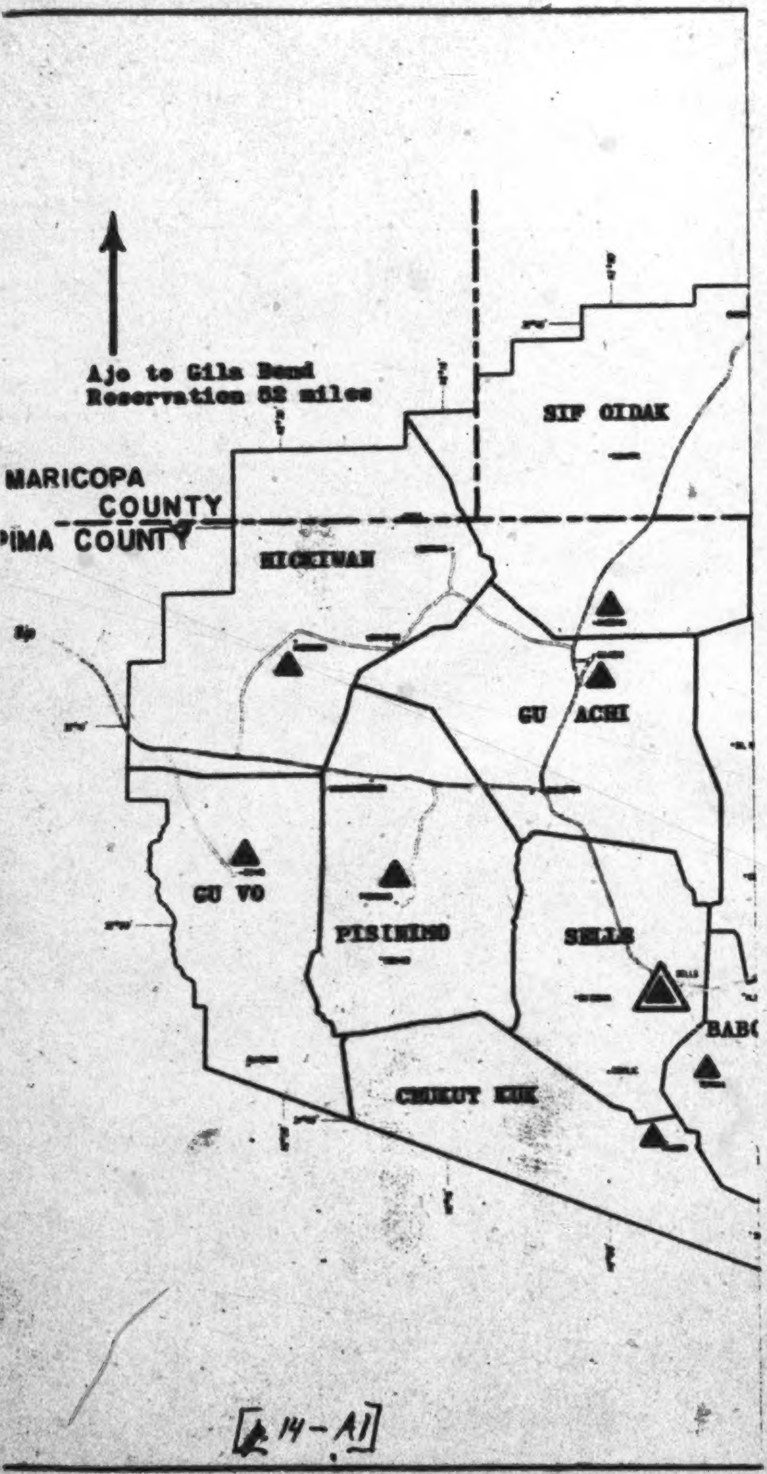
Ajo to Gila Bend
Reservation 52 miles
MARICOPA
COUNTY
PIMA COUNTY
SIF OIDAK
HICKIWAN
GU ACHI
GU VO
PISINIMO
SELLS
BABO
CHUKUT KUK

[▲14-A1]

18: Kelly E-4, 5 (no date) 1963 NU28 Papago NU28

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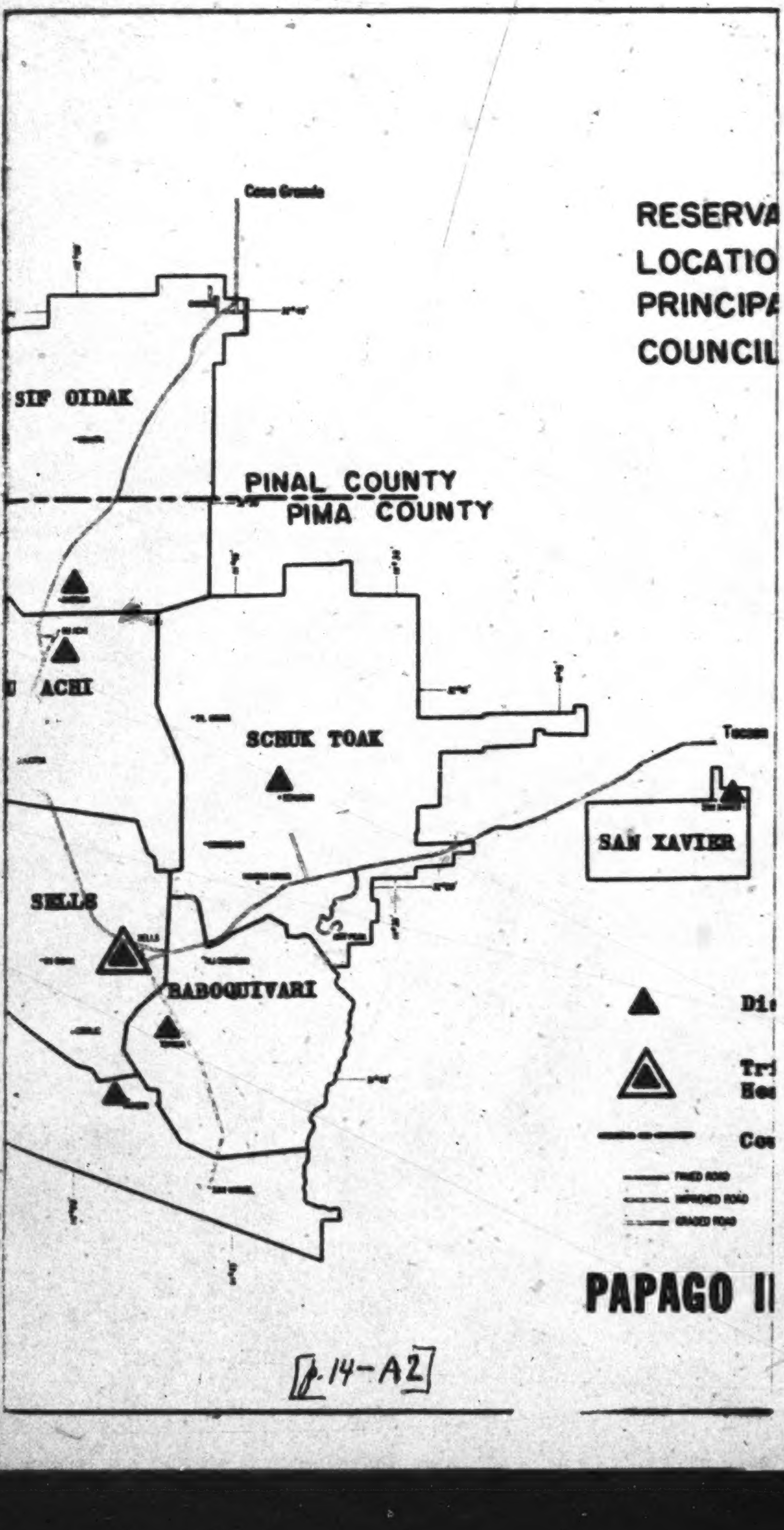
RESERVA
LOCATIO
PRINCIPA
COUNCIL
Casa Grande
SIF OIDAK
PINAL COUNTY
PIMA COUNTY
ACHI
SCHUK TOAK
Tucson
SAN XAVIER
SELLS
BABOQUIVARI
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PAVED ROAD
IMPROVED ROAD
GRADED ROAD
PAPAGO I

p.14-A2

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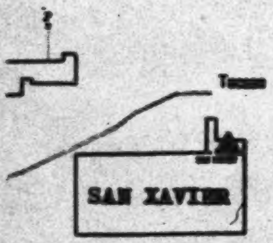
MAP I

RESERVATION DISTRICTS WITH LOCATION OF COUNTY LINES, PRINCIPAL TOWNS & DISTRICT COUNCIL MEETING PLACES



▲ District Council Headquarters

▲ Tribal and District Council Headquarters

▬ County Line

PAPAGO INDIAN RESERVATION

1963

[1·14-A3]

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map 3). In addition, water in quantity has been found in the limestone rocks in the northeastern corner of the reservation and in the volcanic rocks that cover the western section (Heindl and others, 1961). Ground water at an economical depth also occurs on both the San Xavier and Gila Bend reservations.

It would appear from the Heindl report that ample water is available for residential, industrial, and stock water purposes in all sections of the reservations except in the mountainous areas. The community of Sells, for example, had a local supply of ground water which yielded approximately 250 gallons per minute. When additional water was required for the operation of the new Sells hospital, two wells, yielding about 450 gpm, were developed five miles to the west. When additional supplies are needed in the future, proven water bearing ground can be tapped in a wide [361] valley area three miles beyond the hospital wells. Communities located in the valleys, of course, would have ample local supplies. Such locations are Chuichu, Santa Rosa, Gu Oidak (Big Fields), Vamori, and San Miguel.

Water for irrigated farming on the reservation is limited by the lack of ground water at a depth which permits pumping at a sufficiently low cost for agricultural purposes. Water at depths less than two hundred feet is found only near Chuichu, in the Tat Momoli Valley to the south, and in the Santa Rosa Valley to the southwest. Water

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Papago Settlements. It is essential to the understanding of Papago settlement patterns and Papago social, economic and political life to reduce the confusion of Papago place name lists to a system of classification that underlines the differences that exist from one settlement to another.

At least five and perhaps six placename surveys have been conducted in this area since 1915. M. V. Clotts (1915), working for the Department of the Interior, located settlements of all types and took particular notice of the number of houses, the settlement economy, and the condition of the well in each settlement.

J. W. Hoover (1935) interviewed villagers to discover their origin. He published a map showing the "Generic Descent of Papago Villages". This study is important because it places settlements, which are no longer important, in their historic roles in the ever-changing communities on the reservation.

Alden Jones (1944) made a survey to identify the ever-increasing number of new locations on the reservation. On the basis of his work, W. H. Coulson, draftsman for the Bureau of Indian Affairs, compiled and drew a reservation map indicating the location of settlements, roads, wells, charcos, dams, and telephone or power lines. No distinction was made, however, in the size or importance of the settlements. A large black dot merely indicated a ". . . village or community scattered over a mile or so."

Again the Bureau of Indian Affairs attempted to reduce the confusion by securing the approval of the National Board of Geographic Names for a list of designations approved by the Papago Tribe, (Papago Place Names, 1957). Highway maps commonly use these "official" names and we have maintained this tradition. 103 361 127

Confusion in place names, however, is likely to continue. Anglos constantly refer to Quijotoa as Covered Wells, Gu Vo as Kerwo and Wahak Hotonok as San Simon or Tracy's. Indians, among themselves, sometimes have names for villages which are seldom heard and never used by Anglos. Sells, for example, is most commonly referred to as /Wah'osideke/ or /Komkech-ethe-e-Wah'osideke/ (turtle-caught-in-a-crack). Nevertheless, interviews with 32 Indian informants disclosed that official names are usually the ones used by Papagos with, of course, the Papago pronunciation. Exceptions, in addition to Sells, are Jewake for Quijotoa, Keije Heke for Santa Rosa, San Simon for Wahak Hotonok and Wak for San Xavier. 103 [115]

Villages. The Bureau of Ethnic Research at the University of Arizona, in connection with various studies, has compiled an exhaustive list of Papago place names. In total, 173 separate names were listed, but only 149 have been positively identified and accounted for as separate and distinct locations. From this list of 149 locations, 45 settlements were considered by Delmos Jones (1962) to be villages. 103 361

103 Further research, however, has reduced this number of villages
361 to 37, with nine of these classified as major villages, under
621 the definitions given below.

> **Village:** A village represents community life. It is a settlement of five or more separate family co-residence units whose members frequently meet. A village has a church, a feast house or a school, and is visited regularly by outside service personnel. Members of villages live in the location for at least six months of the year. At times, therefore, a village may be vacant.
>
> **Major Village:** A major village, by definition, may never be vacant. At least twenty separate family co-residence groups live at such a settlement longer than six months of the year. In addition, a major village is visited by a variety of service personnel including priests, peddlers, agency workers and Public Health employees.

Papago villages and major villages (indicated by **) are listed below:

Baboquivari

Ali Chukson ** (With Ali Monila and Artesa)
Komelik
Supai Oidak (Cold Fields)
Topawa **

Chukut Kuk

San Miguel
Vamori

Gu Achi

Ko Vaya
Quijotoa ** (With Covered Wells and Maish Vaya)
San Serafin (Gu Achi)
Santa Rosa **

Gu Vo

Ali Chuk (Menager's Dam)
Gu Vo ** (Kerwo)

103
361
·621

Hickiwan

Hickiwan (With Stoa Pitk)
Hotason Vo (Charco 27)
Kaka
Schuchuli (Gunsight)
Vaya Chin
Ventana

Pisinimo

Pisinimo **
Santa Cruz
Tahak Hotonok (San Simon or Tracy's)

Sells

Cowlic
Gu Oidak ** (Big Fields)
Nolia (Nolic)
San Luis
Sells **

Schuk Toak

Chiawuli Tak (Presnal Village)
Havana Nakya (Crow Hangs)
Pan Tak (Coyote Sits)
Sil Nakya (Saddle Hangs)
Viopuli (San Pedro)

Sif Oidak

Anegam
Chuichu **
Gu Komelik
Kohatk
Viava Vo

621
[368]
[366]

Reservation Centers. Sells and Santa Rosa are by far the most important villages. Located at Sells is the tribal government, agency offices and supply buildings of the Bureau of Indian Affairs, and a Public Health Service hospital, along with seven commercial establishments. It is the Papago "capital", the center of all tribal political activities and a great deal of the economic activities

In an earlier day, reservation residence required an adjustment to a desert environment. This being the case, towns were always near a source of water and near acceptable pasture and flood water farm land. At the present time, with wage work becoming increasingly important, in fact essential to the great majority of Indians during some period of the year, residence near a source of wage work is also important. 178 361 433 [464]

Another change in Papago life has also been noted. As recently as thirty or forty years ago community needs were simple and most Papago villages were self-sufficient. Today this is true only for Sells. Other villages look elsewhere for one or another of the essential community services: shopping, education, health services, religion, government, and the like. These needs are met in a slightly different fashion in each of the nine districts. 178 621 628

Baboquivari District. Although the districts — as political subdivisions of the main reservation — were established in 1937, long after the founding of most villages, certain internal district relationships have been built through time which are now important. In Baboquivari district Topawa serves as the voting place in tribal and district elections. It is also the center for the education of Catholic youngsters, and is the ceremonial center for Catholic activities throughout the reservation. Native ceremonial activities and traditional folk medicine centers 634 621 628 368 [666] [797] [796]

Pan Tak, Havana Nakya and Chiawuli Tak and Sohuchk) go elsewhere 634
for wage work, mostly to Kitt Peak and Sells. Those 621
villages away from the highway in the mountains (Sil Nakya, 628
Comobabi) maintain the old pattern of cattle raising and 368
subsistence farming and are oriented toward Santa Rosa.

Sells District. This district has not been studied carefully, but it would not be inaccurate to say that Sells dominates every other location in providing major services, except that of native ceremonialism at Gu Oidak (Big Fields). Catholic children go to Topawa to school; Protestants go to the Public School in Sells.

Sif Oidak District. This district seems to be [166]
losing many of its residents. A recent visit to Kohatk (August, 1963) revealed many houses in disrepair and abandoned. Only six families were still living there. Chuichu also, with the closing of the school several years ago, has lost some of its importance and population. Anegam is the political seat of the district and perhaps the most "traditional".

Non-Village Settlements. Under another definition, 621
perhaps eight additional settlements on the Papago Reserva- 361
tion would be classified as villages. They are listed and described below.

Choulic (Baboquivari District). This village has no public building at all. It is spread over an area of some two-and-a-half miles, thus people nearest San Miguel orient

621 themselves to that village. At the most, there are ten co-
361 resident groups but information revealed in interviews shows
us that seldom, if ever, do these ten groups identify with
each other as separate and distinct from San Miguel or any
other village mentioned.

Chukut Kuk (Tecolote)(Chukut Kuk District). This settlement too has no public building. There were only three co-resident groups living here and each had an outside orientation to either Sells or Ajo.

Pia Oik (Gu Vo District). This settlement had but three co-resident groups at the time of observation and but two abandoned houses to receive any more residents. There is a church, but it is in the fenced compound of Lewis Manuel and is more a family church than a community one. No priest visits this location regularly.

Chuwut Murk (Pisinimo District). This settlement
[166] is barely accessible in August. Informants report that
everyone moves to Pisinimo during the school year so that
their children may attend. There is a church, but no priest
visits it regularly.

Comobabi and Schuchk (Schuk Toak District).
[592] Comobabi has only one household of permanent residents, two
[166] old spinsters. There are, however, fifteen houses here in
good condition and at least six to eight of these are inhabited
seasonally. This village is best classified as seasonally
"vacant".

Schuchk contains but three permanent co-resident 621
groups. There are no churches. During the school year the 361
cook and maintenance man live here. There is a telephone [365]
for general use of the district, and, there is a permanently [162]
residing pair of Anglo families. Thus, with its phone, its
school, its central location for the district council,
Schuchk may be classified as a service center but not a
village.

Tat Komoli (Jackrabbit) and Shopishk (Sif Oidak District). According to two informants living in Gu Komelik, Tat Momoli contains but three families. There is a church, but no feast house. The entry road is in very poor condition and the Catholic priest seldom visits the village.

Only two people live in Shopishk according to one
informant. There is no church and few people visit this
place. Nevertheless, a woman lives here who is somewhat [323]
famous for her pottery.

In addition to the above settlements, there are 361
about 100 locations which are occupied either permanently 221
or temporarily for a wide variety of purposes. In most [233]
instances, they are used by people engaged in stock raising, [241]
or in a combination of stock raising and farming who must
live more or less permanently near their holdings. It must
be recalled that the main Papago Reservation is an area of
4,328 square miles with relatively few miles of improved
roads. Some other localities are used temporarily or

361 Some other localities are used Temporarily or
221 seasonally as cattle and farm camps and others are used
[222] during the season of saguaro fruit harvest. It has been
noted that in some instances scattered settlements are also
used as "vacation" homes.

161 *The Papago Population.* The aspect of the Papago
population most important to this study is its small size,
[162] relative to the large area it occupies. It is scattered
over the entire Reservation in small villages, none of more
than two or three hundred people with the exception of Sells,
[433] the largest town, where about 650 reside (Table 5). Nevertheless,
[182] because the resources of the region are limited,
the relatively small population is supported only inadequately,
and its exact size is of importance in evaluating
the relationships between the people and their resources.

[162] According to the count completed by the Bureau
of Ethnic Research for the year 1959, which will be reported
on in detail below, the total population of the main reservation
was 4,166, with 628 additional Papagos on the San
Xavier and Gila Bend reservations and 6,981 living elsewhere
or with residence unknown, for a total living Papago
population of 11,775.

The main reservation population of 4,166 compares with a total of 5,313 Papagos located on the reservation in 1914, according to a count made by Herbert V. Clotts (Clotts 1915). It must be assumed that there were relatively few Papagos off the main reservation in 1914 and

175 233 small. Most cattle in the 18th and early 19th Centuries were probably semi-wild and formed only a minor part of the subsistence base of the Papago.

175 233 563 Soon after the Gadsden Purchase of 1853 non-Indian ranchers began moving into the area of the main reservation, most of which, until 1917, was public domain. There are no accurate figures on the extent of non-Indian ranching during the years prior to 1917. Large ranches, however, were established in various areas of what is now the main reservation and these were later acquired by the federal government for the benefit of the Papago.

175 233 312 361 Cattle ranching by Indians was on a small scale prior to the drilling of the first wells for stock water in the early 1900's. There thus was added to the traditional Papago well settlement (near an assured supply of water for the winter season) and the field settlement (near the floodwater fields used in the summer) a third recognizable type of settlement, the ranch. A. F. Mark has tabulated the number of identifiable Indian ranch locations between 1850 and 1960 (Mark, 1960, Tables 4 and 5). In 1900 there were six such locations. Another 14 were established by 1925, and another 12 by 1960. Because some were abandoned through the years, there were a total of 23 Papago ranch and grazing locations in 1960.

175 233 These data support the inference that livestock raising began to have substantial economic significance for

WHO--this report is about--Papago Indians

101 This report is concerned specifically with the
[121] role in the southern Arizona cotton harvest of over
7,000 Papago Indians who live along the Mexican bor-
[197] der. These natives speak a Piman language closely
related to others spoken from the Gila River south
to the border of Sinaloa in Mexico. They call themselves the Tohono Au'autam, The Desert People.

101 A few hundred Desert People live on the Mexican
● 361 side of the border. Some inhabit Indian rancherias--
131 villages with houses scattered barely within sight of
each other--close to the frontier, and have contacts
with American Papagos. Others eke out a parasitic
existence around towns of Mexicans who have taken their
[185] lands. They are said to have given up their Indian
heritage and are waiting passively to die.

101 The thousands of Desert People in the U. S. are
[186] a people with hope and pride in being Indian. A few
[464] hundred make a living in low paid jobs in Anglo
cities. They have chosen to break away from their
[199] Indian heritage in an endeavor to give their children
a head start as citizens of wider Anglo-American so-
[891] ciety, especially by affording them a formal education in public schools.

657 Most of the Desert People, however, live in
423 rural semi-desert areas reserved for them by the U. S.
from their former territories. The San Xavier
[131] community was reserved some of its lands in 1874 by
Presidential Executive Order. This 71,090 acre
reserve slices through the Santa Cruz River bottoms,
and could once be irrigated with surface flow (until
Anglos started erosion that cut the channel--and the
[312] water table--20 feet below surface) and now is irrigated from wells. Most of it was allotted to indi-
viduals, and the useable agricultural and range land
[311] is now mostly in heirship status. That is to say its
use is amazingly and cripplingly complicated by the
[428] fractionalization of holdings through inheritance.
Fortunately, the San Xavier community continues to
recognize old use-rights more than the legal allotment system.

WHEN? . . . A Hundred Days

000 To city people in southern Arizona "The Hundred Days" are the first hundred or so in the year when the main industry of the area is in high gear. Then tourists from colder parts of the country flood into the cities to pump enough dollars into the commercial system to last the rest of the year.

461 221 The hundred days of the cotton farmer come earlier, after the first of September. And they are really more than a hundred, extending usually into mid-January. But the cotton picking season is just about one hundred working days long--22 picking days to the month (5½ work days to the week).

Summer heat continues into October, and the picking that began about the first week of September with the opening of the first bolls is hot, sweaty work. More and more bolls open until the first killing frost which usually comes in mid-November turning the plants brown. Then leaves fall off and the last bolls open quickly. After that harvesting is a race against time to pick the lint before rain and sun deteriorate it.

464 221 ● [361] The Desert People begin their annual migration to the cotton fields months earlier to work at cleaning ditches and weeding and thinning the growing cotton. The harvest hands start moving into labor camps in August, and more continue to move in until the peak of the season in November finds perhaps 4,500 Papagos living in Pima and Pinal county camps.

221 The Desert People are old hands at seasonal migrations. For untold centuries they moved back and forth between their fields in the valleys and springs in the mountains where they went after the harvest and the drying up of valley water holes. The present migration out to the labor camps comes a little earlier than harvest time, and interferes with growing crops on the reserves.

221 602 186 182 "Despite the practical difficulties involved, the findings suggest that the development of this physical, social and

[TEXT CONTINUES ON P.22]

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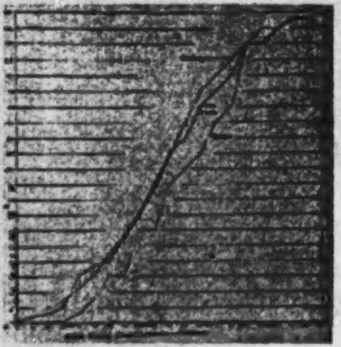

Progress of the Cotton Harvest in 1950. Casa Grande, Coolidge and Tucson areas. (Expressed as the percent harvest was complete.)

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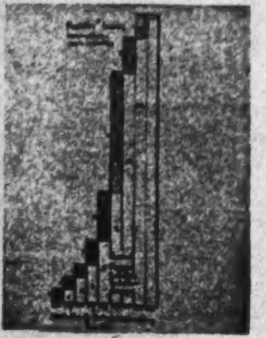
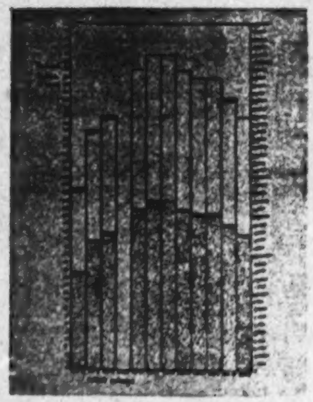
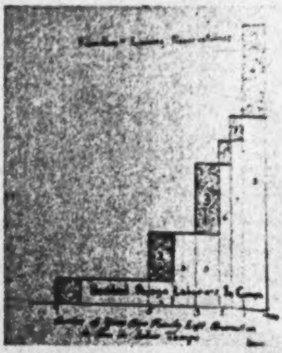


Departure of Papago families for cotton field work, 1950. This chart shows the rhythm of the annual migration from the reserves to chop and harvest cotton.



Growth and decline of cotton picking force in Arizona, 1950. Shaded portion represents Pima and Pinal counties. (Based on figures issued by Arizona State Employment Service: Arizona Cotton Bulletin, 1950 a,b,c,d,e,f,g. Arizona Farm Labor Bulletin, 1950 a, b, c, d.)



Migration of Papago farm workers to permanent residence in labor camps in Pima and Pinal counties, Arizona. This chart illustrates the rising importance of year-round wage labor in Papago economy.

> 221
> 602 psychological base in cooperative family
> 182 life, with roots in the traditional home-
> 186 land to counterbalance the wage work cycle
> is of vital importance to Papago well-being
> as a firm pivot around which the individual
> may build his new adjustment to rapidly
> changing modern conditions. As such, the
> new dual orientation may well serve as the
> focus of administrative planning.[1]

166 However, an increasing proportion of the Desert People
464 who work on cotton farms no longer make an annual
migration from reservation home to labor camp. They
463 have moved from the reserves more or less permanently,
● [361] consciously recognizing themselves as permanent farm
workers. Mostly they are irrigators, but do general
farm work, and include tractor drivers and other
skilled workmen. They contribute some labor to har-
vesting cotton, since men pick when regular jobs are
[162] slack, and wives and children pick off and on. These
people made up over a fifth of the Papagos interviewed
in the course of this study,[2] indicating that the num-
ber of Papagos living on farms outside the reserves
all the time is relatively large, perhaps as many as
464 800.[3] They occupy an important place in the labor
picture and economy of the cotton-growing valleys.
182 Their ability to support themselves by wage labor is
very important to the economy of the reserves, remov-
ing part of the population overload that cannot be
supported adequately by the poor lands of the reserves.

464 This form of adjustment to a radically changed
361 economy has not progressed to its ultimate, however.
166 In South Africa, where European settlers moved in and
confined the natives to similar reserves, about 35%
171 of the native population lives permanently on Euro-
pean owned farms.[4] If 800 Papagos live on southern
[162] Arizona farms all the time, only about 10% of the
population is living on European owned farms outside
the reserves. (Perhaps as many live in southern
Arizona cities.)

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[1] Thompson, 1951, p. 71.

[2] 12 of 53 families, or 22.6%.

[3] About 2,000 Papagos picked cotton in 1950, and about 4,500 lived in labor camps. So approximately 200 Papago men may be working as year-round farm laboerers, and their wives add another 200 part-time cotton pickers. Their families are somewhat smaller than those of pickers migrating from the reserves.

[4] Hunter, 1937, p. 389.

464 36 166 178 179 [221]

The movement of the Desert People to permanent homes in labor camps on European owned farms, abandoning their roots on the tribal lands is a relatively new development. While Papagos have worked for Europeans for almost the entire period of contact, their work has always been brief in duration, a supplemental measure followed by a withdrawal to the homeland. Forsaking overcrowded tribal lands for good seems to have begun only within the last decade, and to have reached significant proportions only in the last 5 years. (Some Papagos have worked for many years as domestics or miners away from the reserves) This late beginning for a class of Papagos severed from their homeland is due to the peaceful nature of contacts between Papagos and Americans and to lack of opportunity for wide-scale farm employment until recent years. The Papago economic base was never destroyed by warfare with the incoming whites as in the case of the Navahos and many other tribes. Overpopulation on deteriorating reserves did not reach a critical point until about the same time extensive development of irrigated agricultural lands in nearby valleys began, offering a safety valve to those Papagos able to speak acceptable English and perform semi-skilled farm work.

[222] [248] [161]

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This class of Papago farm laborers is very new compared to natives living on South African farms. Most of them have grown up on European farms, without any stake in native reserve areas. Some are descended from natives forced into farm labor by destruction of their cattle in wars nearly a century ago.[1]

[602] [592] [594] [186]

The ties native South African farm workers retain with natives living in the reserves naturally depend on the time they have spent on the farms. Some entirely lack relatives or friends on reserves, and have never visited the reserves.[2] A very few Papago year-round farm laborers no longer have relatives on the reservations. But they all still have friends on the trust lands. They all were born on the reserves. They all still visit their old homes, even if only rarely. They are all very conscious that they are Desert People, and are only beginning to view themselves as people apart.

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[1] Hunter, 1937, p. 389.
[2] *Ibid.*, p. 390.

HOW the Papago Indians Work

THE FAMILY-

221 The approximately 2,000 Desert People who move
464 out into the cotton fields from their reserves to
594 work do not move alone. The family--father, mother
361 and children--moves as a unit.

[434]

> "It should be emphasized that, although a larger percentage of his income is obtained from work off the reservation, the Papago wage worker is not generally a footloose migratory laborer according to the usual pattern in the United States. The Papago laborer usually takes his family with him and maintains his home on the reservation."[1]

[162] The Papago family living in Pinal and Pima county labor camps in 1950 averaged some 4½ persons,[2] making the total number of Desert People living in labor camps at the peak of the cotton harvesting season in the neighborhood of 4,500.

162 The usual Papago family in a labor camp included
594 a father and mother and two or three children. Families with children had 3 oftener than 2.[3] About 60%
361 of the Papago families working in the cotton fields
871 brought school children with them from the reserves.[4] What this meant to public schools in the trading centers of the cotton growing area may be deduced from the fact that families with school-age children had on the average 1.6 such offspring to be taught in the schools.[5] If both father and mother work, this means school authorities in the cotton-growing areas of Pima and Pinal counties should expect to provide educational facilities for .8 Papago school children for approximately 60% of the total number of Papago harvesters.

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[1] Thompson, 1951, p. 71.

[2] 47 families had 208 persons, an average of 4.43 individuals in each family. (Actually these families included some additional persons not enumerated.)

[3] 28 families with children had 64, averaging 2.2857.

[4] Of 31 families giving information, 18 brought school-age children to the camps, or 58.1%.

[5] The 18 families brought 29 school-age children.

WHERE THE PICKERS LIVE

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The people who move into the irrigated valleys of southern Arizona to harvest the cotton crop must live somewhere while they work in the fields. Like other migrant farm laborers

> "During a considerable portion of each year they live perforce in houses or shelters which are not their own homes and in localities which are not their own home communities. Their children must suffer a series of breaks in school attendance and be denied many of the community privileges which are the normal lot of other youth. These conditions are important to employers of migrant workers. Good facilities and conditions help to induce workers to accept employment while bad conditions make it difficult for employers to obtain the workers required."[1]

In 1950 cotton harvest hands had essentially two choices in southern Arizona. They could live in cities or towns and ride out to the fields every morning, or they could live in labor camps on the farms and walk to the fields.

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A new pattern of mobility is emerging in the Arizona cotton harvest which would considerably surprise someone familiar with the region a decade ago. Many of the 20,000 or so pickers in Pima and Pinal counties lived in towns and were hauled out to the fields each day in trucks or buses in 1950. Labor contractors recruited these crews, and sent them to the best picking available each day. About two-thirds of the cotton farmers in Pima and Pinal counties paid contractors to haul pickers to their fields.[2] About a fifth of the farmers in Pinal county hired pickers who lived in towns, but drove their own cars to the fields instead of working under a contractor.[3] Actually very few farmers relied on pickers driving to work to harvest their crop--those who did planted small acreages close to towns. Most growers hired anyone who came along in his car along with hands hauled from towns in trucks and those living in camps.

---

[1] Federal Interagency Committee on Migrant Labor, 1947, p p. 18-19.

[2] 20 farmers of 31 giving data, 64.5%, in Pima county did. 26 of 38, or 68.4%, in Pinal county hired such pickers.

[3] 9 of 38 farmers giving data hired them--23.7%.

[4] 4 of 31 farmers giving information hired them--12.9%.

464 In Pima county, at least, Papago cotton pickers
484 seem to have become as fully mobile as any other har-
494 vest hands. Many Desert People who have moved to Tuc-
son or live there during picking season ride trucks or
buses to the fields each morning. The drivers, usually
Mexican-Americans, establish regular routes from which
they pick up hands, and the Indians are just individuals
in a mixed crew of Anglos, Mexican-Americans and Negros.
Some Papago families living in Tucson also move into
labor camps on farms.

At nearby San Xavier the Desert People can choose
[463] either method of working. Those moving out to live in
labor camps are generally irrigators and farm handy men
[621] who live away from their community most of the time, re-
turning for religious celebrations and visits. Part-
time laborers picking cotton usually take an uncomfort-
able ride to their jobs every day in canvas-covered flat
bed trucks that usually have rough benches to sit on.
At least one San Xavier man has escaped the bottom of
the economic scale by hauling other Papagos to work
in his truck even as other contractors.

Fewer Papagos ride to work each morning in Pinal
[184] county. The proportion of the total picking force haul-
ed from the towns each day is also much smaller than in
Pima county. The trading centers do not afford the la-
bor reservoir available in big-city Tucson, nor the
housing for migrant workers found in that city. So the
● [361] greatest part of the harvest labor is housed in camps
on cotton farms, and many of the hands hauled from the
towns live in what are no more than labor camps thrown
up in the trading centers.

464 Despite increasing importance of mobile labor that
361 is more efficient in that it can be put to work where
most needed, most cotton farmers rely still on pickers
living in their own labor camps on their farms. Four-
fifths of the cotton farms in Pima and Pinal counties
have these camps.[1] A few farmers operated more than one
labor camp in 1950--1 farm of every 9 or so has been
afflicted with two camps or more.[2] Some farmers built

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[1] 26 farmers of 34 giving data, 76.5%, in Pima county had camps. 46 of 57 giving data, 80.7%, in Pinal had them.

[2] 72 farms with camps had 82, averaging 1.139 per farm.
46 farms with camps in Pima county had 50 camps.
26 farms with camps in Pinal county had 32 camps.

464 361 a second camp because their fields were located in widely separated areas. Some observed that they had less trouble in their labor camps when different ethnic groups lived in separate camps, so built smaller separated camps instead of a single large one. Some just happened to have more than one camp because they'd purchased land with more than one.

464 362 Regardless of the number of camps a farmer owned, or where they were located in the two counties, what has been said of housing for migrant labor elsewhere in the U. S. applies to Pima and Pinal counties, Arizona.

> "Migrants have little choice in the matter of housing. They must accept whatever shelter is available in the area in which they seek employment. Tents, make-shift shelters, broken-down one-room cabins, converted chicken coops, deserted farm houses, long rows of unpainted one-room cabins, old barns and other farm buildings provide 'homes' for thousands of migratory workers. In most instances, the occupants eat and sleep in one room---cook their meals either in this room or in a nearby cook shack and sleep on bunks or on straw thrown upon the floor. Overcrowding and unsanitary conditions add to the health hazards, endangering both the migrant workers themselves and the communities in which these conditions are permitted to exist."[1]

464 489 The lack of choice is especially true for Papagos and other migrants to southern Arizona's cotton harvest because they are mostly hauled from their homes to labor camps by the farmers, and lack transportation of their own. They must live within walking distance of their work or be hauled to it.

000 Most of southern Arizona's cotton barons haven't been growing white gold very long, but joined with their near-kin in California and New Mexico, they are dethroning King Cotton in the South and enthroning him west of the Pecos river. They probably are going to be raising cotton a long time. So the progress they have made in solving their production problems is of more than passing interest.

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[1] Federal Interagency Committee on Migrant Labor, 1947, p. 20.

362 [466] Not the least of their problems is harvesting. Until such time as they completely mechanize their harvest, the housing they provide for their pickers is of vital concern to the pickers and the communities where the white gold miners operate. By comparing the actual situation in 1950 with the labor-camp code suggested by the Federal Interagency Committee on Migrant Labor in 1947, we can see how near southern Arizona farmers are to a standard likely to be considered reasonable and desirable by most Americans.[1]

SITES

361 362 This suggested camp code to be used as a standard with which to compare southern Arizona camps reads:

> "Article 1. Site, Selection, and Maintenance
>
> "(a) All sites used for labor camps shall be located upon high well-drained ground. They shall not be subject to periodic flooding, or located adjacent to swamps or marshes which might have adverse effects upon the health of the occupants. Camps shall not be located on sites which are subject to extreme traffic hazards. No labor camps shall be located on the water-shed of a domestic water supply.
>
> "Where corrals or stables exist, or where large animals are maintained in connection with any camp, the quarters for any animals shall be separated from the camp.
>
> "(b) All sites shall be adequate in size to prevent overcrowding of buildings.
>
> "(c) All sites shall be graded, ditched, and rendered free from depressions in which water may stand...Where sand or dust create problems, provision shall be made for stabilizing the soil or maintaining satisfactory cover crops.
>
> "(d) The grounds and open areas surrounding the shelters shall be maintained in a clean and sanitary condition free from rubbish, debris, waste paper, garbage, etc."[2]

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[1] The Federal Interagency Committee on Migrant Labor was headed by Maj. Gen. G. B. Erskine, USMC, and included representatives of Dept. of Agriculture, Dept. of Labor, Federal Security Agency, Interstate Commerce Commission, National Housing Agency, and Railroad Retirement Board. Federal Interagency Committee on Migrant Labor, 1947, p. 11.

[2] Ibid., p. 39-40.

361 Drainage (a) is no problem in southern Arizona because
of the lack of rainfall. Even after a summer
362 cloudburst the ground dries out for all practical purposes
in a day. And the domestic water of the region
[312] comes from underground, so there is no question of locating
camps on a watershed. In this study no large animals
[23] were found in any of the labor camps visited,
except for a couple where Papago horse owners had brought mounts to camp, and kept them out in the fields on pasture.

Overcrowding camp sites (b) is another matter. It is difficult to define overcrowding in view of the small number of activities carried on in labor camps during picking season. But a number of southern Arizona camps are sandwiched between a road in front and a field fence behind, without space to drive a car between the rows of cabins. The average distance between dwelling units in Pima and Pinal county labor camps is some 25 to 30 feet.[1] In camps built of concrete blocks, the units are usually arranged in a straight line as apartments without space between. Often tents are spaced with only a yard between. Some spacious camps, on the other hand, leave 60 or 75 feet between units. Always a family's neighbors are very much present in Pima and Pinal county labor camps, however. Quarrels, and indeed most of the ordinary events of living, are quite audible next door. Privacy is difficult to achieve.

13 Since the valleys where cotton is grown in this region
361 are already quite level, grading (c) isn't necessary.
In fact, it would only aggravate the dust problem, which is acute. For the sandy soils of Pima and Pinal counties cannot support much vegetation on the scanty rainfall. The open soil blows readily. Heavy winds in the cotton growing areas stop traffic on main highways regularly each year while the plants are small and cannot hold the soil--the dust load in the air becomes simply too thick to see through.

362 Labor camps are located beside roads for ease of access.
Except for a few along main highways which are
[361] paved, camps are covered with a thick dust coat every
[363] time a vehicle drives by, throwing up a high cloud of
dirt behind. In dry, dusty air harvesters work, eat and sleep.

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[1] 30 feet in 14 Pima county camps, and 25 in 22 Pinal county camps visited in this study (estimated distances.)

362 361 At dusk when breezes are still and hundreds of trucks and cars have returned from the fields to labor camps, stirring up dirt roads, a choking dust pall rises all over the cotton growing valleys. The picker gets his last view of the distant mountains each night through this low hanging dust cloud.

[312] Probably because of the permanent water shortage in both counties, none of the cotton farmers has seen fit to plant cover crops on his labor camp grounds. Nor have any farmers been concerned enough over dust problems to oil either section line roads or camp grounds.

SOCIAL CONTROLS IN LABOR CAMPS

466 361 364 Apparently the main desire of many cotton farmers is to have as little to do with their labor camps as possible. This is reflected in the generally messy appearance of the uncared-for grounds in unsupervised camps. It is a rare camp without cotton or tin cans or paper or garbage or all four scattered about.

186 361 364 However, lack of supervision is not the only reason southern Arizona labor camp grounds are generally messy looking and not very hygienic. One primary reason for dirty camps is their very nature. Their population is temporary and transient, without any sentimental ties to or pride in the camps. As a result, laborers simply do not care about the appearance of camps, and do not bother to keep them clean. It is interesting to note the exceptional labor camps in the region where workers are employed on a year-round basis, and have time to form some attachment to the camp. Even if these year-round workers must live in tents, they make some attempt to beautify the camp grounds. They try to grow a patch of lawn, or a few straggling castor bean plants, or a rose or some iris—and they keep the grounds around their dwellings neat and clean. An urge to grow something seems especially strong among the Desert People and the Mexican-Americans.

621 361 364 Besides this factor of length of residence in labor camps, there is another aspect of social organization involved in so many camps being dirty—with operators having a difficult time coercing residents into cleaning them up. This is the fact there is no real social organization extending through the whole camp. The laborers are a miscellaneous lot generally hired as they come

621 along, and shunted into cabins as they arrive. They do
361 not realize they have a community of interest in keeping
their camp clean—there is no organized social sanction
364 in the camps to force uncooperative residents to clean
up, so everyone is lax.

This is especially pronounced in labor camps with residents of more than one ethnic background. Cultural differences in living habits of different peoples are not often in the consciousness of camp operators who wrongly assume everyone lives or should live just as they do. But those differences lead to a breakdown of cleanliness in the camps.

364 The Desert People are extremely careful around their
own homes on the reserves, and a Papago yard is one of
464 the cleanest spots imaginable, although it may be littered
with stray pieces of furniture and tools. So administrators
626 are puzzled over Papago slovenliness in labor
camps. The answer seems to be found in their pattern of
[351] hiring out. The Desert People go to work as family units
with residents of a reserve town scattering to several
labor camps. As a result, the primary sanction in Papago
community life, the fear of being talked about,[1] loses
its effect. Being talked about by laborers of other
races does not produce action by the Desert People that
talk in their home community would. The same is true of
other people in labor camps—being talked about by members
of other ethnic groups is not strong enough a sanction
to move them to act. In fact, such talk is likely
to produce an opposite reaction because of inter-group
621 frictions. Labor camps housing laborers of more than
571 one racial origin are studies in social disorganization
resulting in general breakdown in normal social controls,
626 resulting in dirty camp grounds, excesses of gambling,
women going to work from different cabins each morning,
178 etc.

364 Usually the Desert People in labor camps keep the
grounds around their own cabins reasonably clean, but farmers hiring all or nearly all Papago laborers are surprised and puzzled when their camps are almost as dirty as camps housing several ethnic groups. They order the Papago "chief" to clean up the camp, but nothing usually happens until the grower gives in and hires someone to clean the camp up.

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[1] Joseph, Spicer & Chesky, 1949, p. 53.

78 church, to be blessed and taken home to give those who couldn't come. But 9 Papagos out of 10 at one of the pilgrimage towns in October, 1950, came to fulfill a vow.[1]

484 788 So important are these pilgrimages to the Desert People that almost three-fifths of the Papagos in the cotton fields in 1950 went to Magdalena, San Xavier or Chuwhiy Guwsk for the October celebration.[2] In numbers, this apparently meant over 2,500 Papagos traveled from southern Arizona labor camps to one of these three churches.[3] Many more Desert People left their homes on the reserves to make their pilgrimages, although the proportion was not as high because of the large number of Protestants among those remaining on the reserves during picking season, and lack of money to finance a pilgrimage. Perhaps another 1,000 individuals made pilgrimages from the reserves. Almost half the tribe went on the 1950 pilgrimage.

This religious exodus affected virtually every cotton farm where Papagos worked to some extent.[4] The [153] number of Papago pilgrims at Magdalena in 1950 seemed rather higher than the year before, apparently reflecting greater psychological stress in the tribe, perhaps arising from greater awareness of a critical economic position and unsettled world conditions again threatening young men. A fifth of the 1950 cotton harvesters had made a pilgrimage in some previous year although they didn't in 1950.[5] indicating the high proportion of pilgrims returning.

Greatest of the 3 celebrations is that held on the day of St. Francis of Assisi, October 4. Pilgrims [955] travel to all three churches where miraculous curing [798] statues of St. Francis Xavier are located—Magdalena, San Xavier, and Chuwhiy Guwsk.

The largest celebration leading up to the Oct. 4 [361] rites galvanizes the small Mexican city of Magdalena, an adobe settlement located about 60 miles south of the international boundary in Sonora. Many are the stories [955] of cures by its powerful statue, which is supposed to [998] have come to the spot when burros bearing it northward for a procession of friars refused to proceed.

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[1] Based on 11 persons giving reasons for their trips.

[2] 23 of 40 individuals giving information made pilgrimages, 57%

[3] There were about 1,600 families with 4,500 Papagos in labor camps in Pima and Pinal counties in 1950.

[4] 9 of 10 farmers in Pima county and 10 of 10 in Pinal giving information lost some Papago workers.

[5] 8 of 40 giving information, 20%.

INCENTIVES

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All incentives impelling papagos to work for wages in 1950 will continue into the foreseeable future.

WHY

There is no appreciable improvement in reservation resources on the Papago horizon. Congress shows no signs of passing the Papago Rehabilitation Bill while spending heavily for cold and hot wars.

Even were the Papago Development Program translated into reality, a large residue of Papagos will remain unsupported by their tribal lands. They must seek labor outside their reserves.

> "Upon completion of the range improvements, further irrigation developments, and improvement of the flash flood farming areas, it is estimated that the reservation resources will support at a reasonable level of living, not to exceed 800 families. This leaves about 400 families, together with the increase in population, who must be permanently located off the reservation."[1]

464 166 122 361 About 150 Papago families are pointing the way for those who must relocate, working in the Ajo mine and in other Arizona cities.[2] Many families are already living permanently on farms where they work. This study indicates perhaps 200 Papagos already work on farms the year round. They represent approximately 200 families of approximately 800 persons, far more than this writer, at least, expected beforehand. More Desert People can find permanent farm employment if they can learn skilled farm labor. Their situation is far from hopeless.

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[1] Secretary of the Interior, 1949, p. 10.

[2] *Ibid.*, p. 10.

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125 For this reason, 471 Papagos were found at work in the cotton fields. Some other farms were found to employ Papagos, but numbers could not be ascertained. At any rate, the 471 Desert People were 8.85% of all 5,319 pickers counted in this study. This may be accepted as a valid minimum proportion, since it does not include some farms where Papagos worked where the total number of pickers was obtained, but not the number of Papagos. A total of 536 Indians of all tribes were found on this same basis among 5,319 pickers counted in this study, or 10.1%. Correcting the propotion to allow for the unknown numbers of Papagos at work might mean 10% of the pickers actually were Desert People, with all Indians making up 12% or 13%.

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128 The validity of this guess may be checked. In Appendix I it was estimated Pima county hired 2,858 pickers, or which number 10% is 286 Papagos. The 121 Papagos in the ethnic sample in Pima county worked on 13 farms, which were 61.9% of Pima county farms hiring Desert People. If other farms hired proportionate numbers, 196 were hired on farms studied. These included 70% of the Pima county cotton planting, so all farms in the county planting cotton should have hired some 280 Papagos. This is within 6 of the 286 figure (10% of the estimated total of pickers) so the two estimates are very close, indicating accuracy.

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NUMBER OF PAPAGO COTTON PICKERS, 1950

		Papago pickers (8.85%)	Papagos off-res. (x 2.3)	Papago pickers (10%)	Off-reserva.
Pickers needed per day to harvest Pinal-Pima county crop in 96 days	16,095	1,424	3,275	1,610	3,703
Average number of pickers hired per day, Oct.-Dec. (ASES data)	19,251	1,704	3,919	1,925	4,428
Average pickers hired per day Oct.-Dec. (Data of this study)	19,764	1,748	4,025	1,976	4,545
Peak number of pickers hired per day in any week. (ASES data)	22,140	1,959	4,496	2,214	5,092

On the basis of these figures it seems safe to say at least 1,700 Papagos picked cotton in 1950. And this meant some 2,750 Desert People lived in farm labor camps off their reservations. But the most likely estimate appears to be approximately 2,000 Papagos harvested cotton and about 4,500 in all lived in labor camps in Pima and Pinal counties in 1950.

[P.136 contains no textual material]

Papago NU28
Pima NU29

Pa 658 797 There is what is termed a "contract school" located at Tucson, which many of the Papago children attend. The school is established and supported in part by a missionary department of the Presbyterian church. The buildings are large, airy, well planned, and adapted to the purpose required. The pupils seem well disciplined and clean. The government pays a stated sum annually to the school for each pupil in attendance as reimbursement for board and clothing furnished. The school owns 5 or 6 good buildings, all in good condition and well furnished, also a farm of 43 acres. On account of lack of water but few garden vegetables are grown, but barley and wheat yield abundantly.

Some of the scholars are taught carpentering, painting, and plastering, and their work is quite satisfactory.

PAPAGOS LIVING OFF THE RESERVATION.

Pa 131 197 These Papago Indians live in the southern part of Pima county, along the southern border of the territory of Arizona. Their language is similar to that spoken by the Pimas. They roam over a country about 100 miles in width north and south and about 125 miles east and west, and there are a few small villages over the Mexican border but near the boundary line.

Pa 13 231 The country in which they live consists of broad, open plains, divided by mountain ranges. The valleys or plains are arid, having no natural springs or running streams of water; yet after the summer rains these plains are covered with grass of a fine quality, and owing to the dryness of the air this grass is cured or dried on the ground and furnishes good, rich food for cattle during the remainder of the year.

Pa 361 312 342 [231] Pa [352] The Indians select their dwelling places at the foot of the mountains near the mouth of the various canyons that open out into the plains. Small springs often flow through these canyons and sink into the sand. The Indians utilize these springs or sink wells into the sand, and thus secure the underflow from the springs. Their cattle feed out into the plains and return to these wells or springs to drink. Near these watering places, usually on an elevation, the Indians build their houses in their permanent villages of adobe, about 12 by 16 feet in area and about 8 feet in height. Small poles are laid on top and crosswise of the building, and on these are laid brush, with weeds or grass on the brush, the whole covered with about 6 inches of clay, which is impervious to water. The floor is of clay, and there is one doorway, but no windows. The doorway is sometimes closed with a dried beef hide. As a rule, they live on the outside of the house. The house contains no furniture except a little bedding and some cooking utensils.

Pa 262 439 291 Their food consists of beef, dried wild fruit, dried mesquite beans made into a kind of bread, and wild game. During the summer rains they raise some vegetables, which they dry for winter use. They also sell or trade cattle to settlers in the Gila and Santa Cruz valleys for wheat and corn, which the women grind in their crude way into meal and flour. They have adopted the civilized mode of dress, and are gradually learning the use of soap.

The women of the tribe are virtuous and industrious, being in these traits far in advance of any other tribe in the territory.

Pa 161 648 Pa 46 There are 4,800 of this tribe living off the Papago reservation. With rare exceptions they are self-sustaining, have always been good citizens, and on many occasions have joined with the whites to assist in suppressing murderous Apaches. The principal occupation of the men is raising cattle and horses, and a little farming when they can find a piece of damp ground that will raise corn and vegetables, hunting, chopping wood around mining camps, and ordinary labor wherever they can find it. If there is any mixed blood in the tribe it is not perceptible.

There are several mining camps scattered throughout the country which these Indians inhabit, and in some of the large valleys wealthy men or companies have sunk wells 300 or 1,000 feet deep and established cattle ranches or ranges, and many Indians are employed about these camps and mines.

Pa 133 487 224 The country is somewhat difficult of access, as there are several mountain ranges running through it. The roads follow the valleys, and sometimes it is "a long way around where it is only a short way across". These mountain ranges abound in game, which the Indians hunt.

Pa 273 231 A month's travel in these Papago villages failed to reveal a single case of drunkenness, although there are frequent instances of drunkenness among Indians in the streets of Tucson. They have great numbers of horses and cattle, but it is impossible to form a correct estimate as to numbers. The horses are small and inferior, but the cattle are fully up to the average in size and quality.

Pa 648 771 197 These Indians as a tribe have always been exceptionally friendly to the white people. They have never received aid from the government. The little religion they have is a conglomerate of Roman catholicism, superstition, and Indian hoodooism. The Roman Catholic church established missions among them more than 150 years ago.

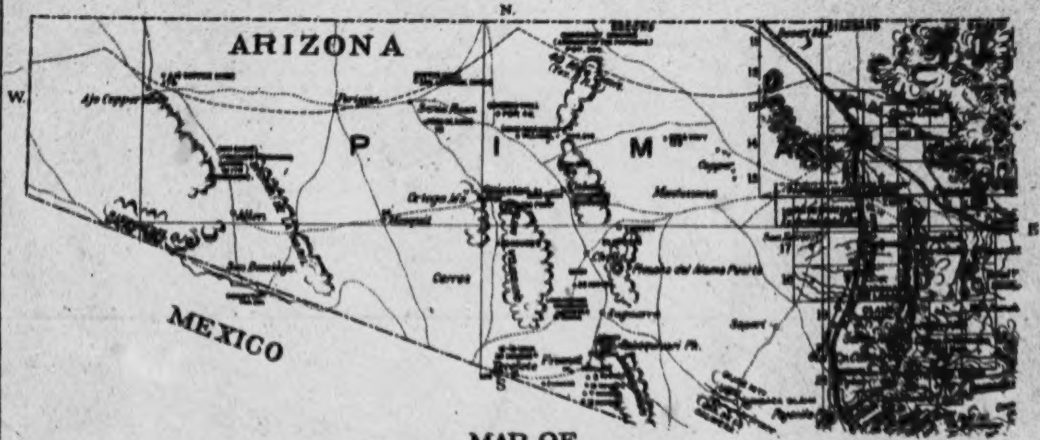
THE RESERVATION AND NONRESERVATION PAPAGO INDIANS, PIMA AGENCY.

Report of Special Agent C. W. Wood on the reservation and nonreservation Papagos of Pima and Cochise counties.

Pa 101 Pi [101] Pa [797] TRIBAL NAME.—The Papagos and Pimas were formerly one tribe. Authorities differ as to the derivation and meaning of the name. One view is that Papago means "hair cut", another that it means "baptized". Neither of these meanings has any etymological basis or value. The most reasonable derivation of the term seems to be the following, derived from conversation with the oldest Indians: the division of the Pimas occurred from the labors

ELEVENTH CENSUS OF THE UNITED STATES
ROBERT P. PORTER, Superintendent.

INDIANS.



MAP OF

PAPAGO INDIAN TOWNS

SOUTHERN ARIZONA —— PIMA COUNTY.

FIGURES INDICATE POPULATION, WHEN HOUSES ARE NOT MENTIONED.

DRAWN BY C.W. WOOD, SPECIAL AGENT.

[Facing page 142]

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487
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3: Whited G-5 (1890) 1894 NT15 River Yumans

Papago NU28